DOCUMENT RESUME

ED 192 045 CE 026 497

AUTHOR Miller, Tyson A.
TITLE Statewide Continuing Education Needs Analysis of New Hampshire Business, Industry, and Service Organizations. Executive Summary and Final Report.
INSTITUTION New Hampshire Coll. and Univ. Council, Manchester.
PUB DATE Oct 79
NOTE 128p.

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS Adults; Business; *Continuing Education; Credit Courses; *Educational Needs; Employees; *Employer Attitudes; Incentives; *Industrial Training; Needs Assessment; On the Job Training; Publicity; School Community Relationship; State Surveys; Training Allowances; Tuition Grants
IDENTIFIERS New Hampshire

ABSTRACT

New Hampshire employers, expecially large employers, see a significant need for continuing education for their employees, according to a survey of 16,000 business, industry, and service organizations in the state. Of the 1,883 employers (12%) who responded to the mailed questionnaire and the 68 employers who were interviewed, 84 percent would like to see their employees better trained, while 77 percent were either "very interested" or "somewhat interested" in custom-made courses designed for their employees. Survey respondents preferred short-term courses and most frequently chose business administration, personnel, and accounting as the most needed academic subjects, with long range needs for employee training in computer science and technology, banking, law, video tape production, electronics, plastics technology, and basic skills in reading and writing. At least 39 percent now offer or would offer some form of tuition payment for employees taking work related courses. A large percentage (73%) of employers were having at least some difficulty in finding properly trained employees for their businesses, especially in manufacturing concerns. The survey showed a need for better information dissemination, because a majority of businesses, especially small businesses, were not aware of current educational offerings in the state. Numerous tables, the survey instrument, and interviewer's supplement are included. (KC)

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STATEWIDE CONTINUING EDUCATION NEEDS ANALYSIS OF NEW HAMPSHIRE BUSINESS, INDUSTRY, AND SERVICE ORGANIZATIONS

Executive Summary

By

Tyson A. Miller

New Hampshire College and University Council
2321 Elm Street
Manchester, NH 03104

October, 1979

CE 026 497

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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EXECUTIVE SUMMARY

The Statewide Continuing Education Needs Analysis of New Hampshire business, industry and service organizations is based on mail surveys and on-site interviews of approximately 16,000 New Hampshire organizations. Eighty-two percent of the estimated 19,613 New Hampshire organizations were reached in this manner. The information presented in this report represents the responses of over 2,000 organizations that either participated in a mail survey or were involved in on-site interviews.

Report Structure

The main body of the report is presented in three parts.

Part I focuses on an examination of the current condition of New Hampshire organizations in terms of meeting the educational needs of their current and future employees.

Part II provides information concerning the structure, delivery and academic programs preferred by New Hampshire employers for their employees.

Part III provides an overview of the perceptions of New Hampshire business, industry, and service organizations concerning educational services currently offered.

In order to form the basis for a coherent approach to meeting the educational needs of New Hampshire organizations and their employees, this report is designed to survey New Hampshire organizations in terms of (1) the needs of their current and future employees, (2) the academic programs they consider necessary, and (3) the kinds of problems they have experienced in the past.

Characteristics of Sample Group

The respondent group can be relied upon to be representative of the entire universe of New Hampshire organizations when compared in terms of the distribution of industry types and geographic locations. However, the respondent group is skewed towards larger organizations in terms of number of employees. The likelihood of an organizations returning a completed questionnaire appears to increase directly with the number of employees which that organization employs.

In order to put the information presented in the study in the proper perspective, it is significant to note that the majority of New Hampshire organizations are small in terms of number of employees. Seventy-eight percent of the 19,613 organizations located in the state have less than ten employees and only 386 organizations (2%) have 100 or more employees.

General Interest in Further Training

The goal of this part is to find out, in general, if New Hampshire employers feel that they would like their employees better trained and, if so, which particular groups have the greatest need.

Employers were asked "Would you like your present employees better trained?" Of the 1,182 respondents to this question, 1,542 (or 85%) responded "yes" or "somewhat." This high response indicates a general consensus that further employee training is desirable, and that employers feel the need for better training for their employees. While the need for further training is evident in all groups, it is clear that "Finance, Insurance, and Real Estate, Contract Construction, and Transportation organizations are most interested in further training. Interest in having employees better trained

increases directly with employee size - the larger the organization, the greater the perceived need.

A geographic distribution of the "yes" responses indicates that interest in better trained employees occurs very frequently among New Hampshire organizations regardless of county.

One can also conclude from the responses that the occupational type having the largest need for further training is the Professional, Technical, and Managerial employee group. Fifty-two percent of the employers surveyed indicated a need for short-term training sessions for this group, and 45% of those surveyed preferred special courses especially designed for this group. Forty percent of those surveyed indicated a high or moderate need for short-term training sessions for the "Craft Operatives and All Others" group. Almost one-third of those who responded to the survey indicated a "high" or moderate need for short-term training sessions on specific needs for clerical employees.

Finding Qualified Employees

Seventy-three percent of the survey respondents indicated that they are having difficulty finding qualified employees. Among the organizational groups, manufacturers appear to be having the greatest difficulty finding qualified employees. There appears to be no clear relationship between employee size and difficulty finding employees. Geographically, Belknap, Sullivan, and Hillsborough counties contain the highest number of organizations having difficulty finding qualified employees.

Respondents provided 349 job titles describing specific occupational categories where they were having difficulty finding qualified employees. Of these, 24.4% were categories which would generally require at least an

associate's degree as basic preparation for the position. Most frequent among those that require a postsecondary education are health care, data processing, office management, and education. Engineers and engineering technicians are also in high demand.

Organizational Incentives

The kinds of sacrifices in terms of hours lost on the job, tuition payments, bonuses, etc. that an employer is willing to make in order to encourage employees to train for a new assignment or upgrade and develop new skills are a good indication of the organization's interest in additional training. Of the 1,880 organizations that supplied information concerning their organizational incentives, 1,289 (or 68.7%) provide on-the-job training for their employees. Thirty-nine percent of the respondents indicated that they provide (or would make available) payment for some or all tuition and other expenses at area educational institutions. Over 30% of the total respondents indicated that they provide or would make available additional pay and/or promotion based on educational achievement. Only 9.3% of the employers indicated that they have or would make available no educational incentives for their employees.

There appears to be a high correlation between organization size, in terms of number of employees, and the incentives offered. As the size of the organization increases, so does the likelihood of there being one or more educational incentives offered.

Organizational Financial Aid Policies

Sixty-eight New Hampshire organizations that participated in on-site interviews by MBA students were asked questions regarding their financial aid policies. Of these, 50 indicated that their organizations have a policy

for helping employees finance their education. The most common policy is a tuition refund program. All of the employers interviewed indicated that course subject areas must be job-related or consistent with job requirements in order to receive educational tuition aid benefits. Thirty-two of the forty-four organizations which offered tuition refund programs make those programs available to all full-time personnel. Seven include part-time personnel in their programs, and twelve offer tuition refund benefits for persons in specific job categories only. Thirty-six of the forty-four organizations that indicated they offer a tuition refund program have formal policies regarding grade requirements for tuition aid. Of these, nineteen supply aid for successful completion of the course only.

Educational Loan Programs do not appear to be popular among New Hampshire organizations. Of the sixty-eight employers interviewed, only three indicated an educational loan policy.

Of the sixty-eight organizations questioned concerning their preferences for academic credit versus noncredit courses, only seven organizations indicated any distinction between the two. Six of the seven allow credit courses only, while the other allows noncredit courses only. The vast majority of employers made no distinction between credit or non credit courses. There were even fewer organizations with policies regarding degree programs versus taking individual courses with no degree objective in mind. Only three organizations had a formal policy in this area of which two required a degree objective, and only one required no degree objective. Again, the vast majority made little or no distinction between degree or nondegree course objectives.

Educational benefits for the spouse and/or children of employees are not common in New Hampshire. Only two of the sixty-eight organizations interviewed provide any sort of benefit to the employee's family.

Only 15% of the sixty-eight organizations interviewed have formal educational budgets. Twenty-nine percent of the sixty-eight organizations interviewed indicated that they provide educational counseling. However, half of these organizations indicated that their counseling is relatively informal, with no specific specially trained staff member assigned to the job.

Interest in Custom-Designed Courses

New Hampshire employers perceive a significant need for custom-designed courses for their employees--with over 76% of the total repsondents indicating that they are "very interested" or "somewhat interested." Eighty percent of the governmental organizations surveyed indicated that they are interested in custom-made programs. Transportation, Communication, Utilities, and Contract Construction are two organizational groups which also indicated a high frequency of interest in custom-made programs (84% and 81% respectively). Agricultural organizations appear to be the least interested in custom-made courses, with 29.6% of their numbers indicating that they are "not interested."

There is a direct relationship between employee size and the need for custom-designed courses. The larger the organization, the greater is the likelihood of interest.

Positive respondents were examined by geographic location. No significant relationship between interest in custom-designed courses and geographic location was evident in this analysis.

Cooperative Regional Training

Five-hundred and eighty organizations were asked to complete a survey question which asked if they would participate in cooperative regional training/educational programs which combined employees from several area organizations with similar educational needs. Of the organizations surveyed, 79.3% indicated that they would be interested in such a program. Less than 10% of the respondents indicated that they would not be interested in cooperative regional programs.

Preferred Course Structure

In order to obtain an indication as to the preferences of New Hampshire employers in terms of course structure, survey recipients were asked to rank their needs among specified employee types for a choice of the following three training options. They were: (1) short-term training sessions on specific needs, (2) special courses for upgrading and developing new skills, and (3) courses leading to a college degree. Short-term training sessions were the most frequently chosen option with 41% of the respondents indicating a high or moderate need. Thirty-five percent of the survey respondents indicated they had a high or moderate need for special courses for upgrading and developing new skills, while only 7% of the respondents indicated a high or moderate need for courses leading to a college degree. Providing a college degree for their employees does not appear to be a priority among New Hampshire employers. However, if employees had been surveyed on their interest in courses leading to a college degree, the response may well have been somewhat higher.

Preferred Skill Training Areas

New Hampshire employers were asked to circle the letter of those skill-training areas where a skill development program might be particularly

beneficial to their employees. Of the sixteen skill development areas to choose from, "developing/planning/organizing/supervising skills" was selected with the highest frequency (14.3% of the responses). "Leadership skills" and "numerical/financial/accounting skills" were also frequently circled and received 14.3% and 11.5% of the total responses, respectively. Together these three skill development areas received 38.7% of the circled responses.

Employers were asked to approximate, if possible, the number of employees they might encourage to enroll in such programs. "Leadership skills" and "developing/planning/organizing/supervising skills" appear to attract the highest number of employees, with 1,495 and 1,429 employees encouraged to enroll, respectively.

Preferred Academic Subject Areas

Survey recipients were asked to select from a list of academic programs those subject areas that they would support for the continuing education of their employees. There were seventy-two academic program areas from which to choose. Seven of the ten most frequently chosen academic programs fall in the business and management area. Business management and administration, personnel management, and accounting were the three most popular academic programs chosen.

In a free response question regarding preferred academic program areas for long-range needs, training in computer science and technology occurred repeatedly. Technical knowledge in banking and law were also mentioned frequently. Other long-range needs include video tape production techniques, digital electronic service skills, plastics technology, and the ever present basic skills in reading comprehension and writing.

Information Dissemination

Survey recipients were asked how well informed they felt about the educational training and skill development services currently offered in New Hampshire. Only 5.5% of the total respondents indicated that they were "very well informed" about the educational services currently offered. Almost 57% of the 1,883 respondents to this question indicated that they were either "poorly" or "not informed" about current educational services. If one were to rank New Hampshire counties by the frequency of poorly informed organizations each one contained, Carroll County would top the list with 66.6% of organizations within that county poorly or not informed at all about educational services. The Massachusetts border county of Rockingham follows with 61.7% of its organizations uninformed. None of the remaining counties had less than 48% of their organizations poorly or not informed about educational services.

As employee size decreases, the percentage of "poorly" or "not informed" organizations increases in a range from 40% to almost 60%.

There are relatively few organizations that employ large numbers of personnel in New Hampshire. Consequently, special emphasis must be given to meeting the needs of small organizations. If this is to be done, communication methods must be developed that can effectively reach the large numbers of small organizations distributed throughout the state.

In Conclusion

New Hampshire business, industry, and service organizations have expressed a significant need for educational training/educational services for their employees. The following points underlie this conclusion:

-- Eighty-four percent of New Hampshire organizations indicate that they would like their employees better trained.

-- Seventy-three percent of New Hampshire organizations are having some degree of difficulty finding employees.

-- Seventy-seven percent of New Hampshire organizations are either "very interested" or "somewhat interested" in custom-made courses designed for their employees.

-- Thirty-nine percent of New Hampshire organizations either now offer, or would make available, some form of tuition payment for their employees.

-- Fifty-seven percent of New Hampshire organizations are either "poorly" or "not informed at all" about the current educational offerings in the state.

STATEWIDE CONTINUING EDUCATION NEEDS ANALYSIS OF NEW HAMPSHIRE BUSINESS, INDUSTRY, AND SERVICE ORGANIZATIONS

Final Report

By

Tyson A. Miller

New Hampshire College and University Council
2321 Elm Street
Manchester, NH 03104

October, 1979

FOREWORD

THE CHANGING SCOPE OF EDUCATION

> "During recent years we have been witnessing the development of an exciting new concept in education. We have seen its beginning in many educational institutions and organizations throughout the country, and we have heard it identified in a variety of different ways...But whatever we call it, this is a movement based on the growing recognition of education as a means of meeting diverse and changing needs of Americans throughout all states of their lives."*

It has become increasingly apparent that the role of education in the United States is undergoing radical change. The motivating factors behind participation in postsecondary education, the kinds of courses being offered, the age of course participants, and the formal or informal atmosphere of the educational setting have become variables which must undergo rapid and constant readjustment in order to accommodate for the often changing needs of a new kind of student, the adult learner.

In light of these new needs, successful continuing education operations are learning to design programs to meet the specific goals and changing characteristics of the clients they serve. Continuing education faculties and administrators at many colleges and universities are preparing new course designs that accommodate and appeal to such changing motivations for participation. The types of courses are expanding to include non-credit evening, weekend and early morning types of delivery. Instructors are learning to deal with non-traditional age groups (those 25-35, 35-50, and 50 or older) in a manner that distinguishes them from their younger, traditional colleagues.

---

* Walter F. Mondale in hearings before the Subcommittee on Education of the Committee on Labor and Public Welfare, United States Senate, 94th Congress, First Session on S.2497 (the Lifetime Learning Act), December 18, 1975.

Educators are learning to deliver courses in an informal manner and in locations outside the formal classroom setting.

If intelligent decisions are to be made regarding the structure, content and delivery of continuing education programs, specific information concerning the individual characteristics of the adult learner must be available. If continuing education programs are to be successful, able to fill specific educational needs and be financially self-supporting, a serious planning effort must be made in order to determine what kinds of programs are needed, who will participate, and how the cost of these programs will be supported.

This report provides a foundation of data relative to the specific educational needs of the New Hampshire adult learner as perceived by the employer. It is intended to provide one more tool in helping educational planners make accurate decisions in designing programs to match the specific characteristics of the clientele they serve.

PROJECT PARTICIPANTS

NHCUC STAFF

Eric Brown, Project Director
Tyson Miller, Associate Project Director
Patricia Laramee, Word Processing Technican

INTERVIEW TEAMS

NEW HAMPSHIRE COLLEGE

Dr. Anthony Laza, Faculty Consultant
Susan Brooks, Student Interviewer
Daniel DeLeon, Student Interviewer
Robert Simmons, Student Interviewer
Dwight S. Wilder, Student Interviewer

PLYMOUTH STATE COLLEGE

John V. Miller, Faculty Consultant
Mary Bergeron, Student Interviewer
Walter Purtel, Student Interviewer

RIVIER COLLEGE

Dr. George E. Shagory, Faculty Consultant
Beth Gramling, Student Interviewer
John O'Shea, Student Interviewer
William Proskow, Student Interviewer

UNIVERSITY OF NEW HAMPSHIRE

Lisa M. Baker, Student Interviewer
Susan M. Korn, Student Interviewer
George Reed, Student Interviewer
Wendy Wren, Student Interviewer

OTHER

Pat Craig, Data Processing Consultant
John Gregor, Survey Consultant
Susan Stahl, Educational Consultant
Susan Sliwoski, Data Processing Consultant

ADVISORY COMMITTEE

Robert Bloomfield, Director, Nashua Vocational Technical Institute
Kenneth Davis, Professor, Tuck School, Dartmouth College
Edward Durnall, Director of Continuing Education, U.N.H.
Ernest Greenberg, Director of Continuing Education, New Hampshire College
Maurice Olivier, Assistant Dean, School of Continuing Studies, U.N.H.
Bruce Poulton, Chancellor, University System of New Hampshire
Curtis J. Riendeau, Director of Continuing Education, Daniel Webster College

TABLE OF CONTENTS

FORWARD.....i

PROJECT PARTICIPANTS.....iii

LIST OF TABLES.....vi

INTRODUCTION.....1

THE SAMPLE.....7

PART I
EDUCATIONAL NEEDS OF NEW HAMPSHIRE ORGANIZATIONS

THE INTEREST OF NEW HAMPSHIRE EMPLOYERS IN FURTHER EDUCATIONAL TRAINING FOR THEIR CURRENT EMPLOYEES.....12

General Interest in Further Training.....12
Occupational Types Having Greatest Need.....17

NEEDS FOR FUTURE EMPLOYEES.....20

Finding Qualified Employees.....20
Specific Hard-to-fill Occupational Categories.....26
Minimum Education Requirements.....26

EDUCATIONAL BENEFITS AND SERVICES OF NEW HAMPSHIRE ORGANIZATIONS.....29

Organizational Incentives.....29
Overview of Organizational Financial Aid And Career Counseling Policies.....35

PART II
PROGRAM STRUCTURE - CONTENT AND DELIVERY

PROGRAM STRUCTURE AND DELIVERY.....43

Interest in Custom-made Courses.....43
Willingness to Participate in Regional Programs.....47
Preferred Course Structure.....48

PROGRAM CONTENT.....53

Preferred Skill Training Areas.....53
Preferred Academic Subject Areas.....55
Additional Program Areas Suggested by Survey Respondents.....58
Self-designed Programs.....58
Long-range Needs.....62
Special Needs of New Hampshire Primary and Secondary Schools.....63
Match Between Academic Program Needs and Current Available Resources...65

TABLE OF CONTENTS
(CONTINUED)

PART III
EMPLOYER PERCEPTIONS

INFORMATION DISSEMINATION.....69

PERFORMANCE OF GRADUATES IN THE WORKFORCE.....76

APPENDIX A ACADEMIC PROGRAM PREFERENCES OF NEW HAMPSHIRE EMPLOYERS AND NUMBER OF DEGREE PROGRAMS CURRENTLY AVAILABLE.....79

APPENDIX B OCCUPATIONAL CATEGORIES WHERE NEW HAMPSHIRE ORGANIZATIONS ARE HAVING DIFFICULTY FINDING EMPLOYEES.....81

APPENDIX C PRIMARY SURVEY INSTRUMENT.....89

APPENDIX D FOLLOW-UP SURVEY INSTRUMENT.....93

APPENDIX E INTERVIEW SUPPLEMENT 101

LIST OF TABLES

TABLE 1 - COMPARATIVE ANALYSIS OF ACTUAL NEW HAMPSHIRE DISTRIBUTION OF INDUSTRY TYPES WITH DUN'S MAILING LIST AND RESPONDENTS TO FIRST MAIL SURVEY OF 16,081 NEW HAMPSHIRE ORGANIZATIONS.....8

TABLE 2 COMPARATIVE ANALYSIS OF ACTUAL DISTRIBUTION OF NEW HAMPSHIRE ORGANIZATIONS BY COUNTY WITH FIRST SURVEY RESPONDENT POPULATION.....9

TABLE 3 COMPARATIVE ANALYSIS OF ACTUAL DISTRIBUTION OF NEW HAMPSHIRE ORGANIZATIONS BY EMPLOYEE SIZE WITH FIRST SURVEY RESPONDENT POPULATION.....9

TABLE 4 WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED? - NEW HAMPSHIRE AGGREGATE.....12

TABLE 5 WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED? - BY ORGANIZATIONAL CLASSIFICATION.....13

TABLE 6 WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED? - BY EMPLOYEE SIZE.....14

TABLE 7 COMPARATIVE RANKING OF RESPONDENTS TO "WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED?".....15

TABLE 8 COMPARATIVE RANKING OF RESPONDENTS TO "WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED?" - BY COUNTY.....16

TABLE 9 RESPONDENTS WHO INDICATED "HIGH" OR "MODERATE NEED FOR SPECIFIED TRAINING OPTIONS.....17

TABLE 10 PERCENT OF RESPONDENTS WHO INDICATED A "HIGH OR MODERATE" NEED FOR TRAINING: BY ORGANIZATIONAL CLASSIFICATION AND EMPLOYEE TYPE.....19

TABLE 11 DO YOU HAVE DIFFICULTY FINDING QUALIFIED EMPLOYEES? NEW HAMPSHIRE AGGREGATE.....20

TABLE 12 DO YOU HAVE DIFFICULTY FINDING QUALIFIED EMPLOYEES? - BY ORGANIZATIONAL CLASSIFICATION.....21

TABLE 13 DO YOU HAVE DIFFICULTY FINDING QUALIFIED EMPLOYEES? - BY EMPLOYEE SIZE.....22

TABLE 14 DO YOU HAVE DIFFICULTY FINDING QUALIFIED EMPLOYEES? - BY OWNERSHIP.....23

TABLE 15 FREQUENCY OF "YES" RESPONSES TO DIFFICULTY FINDING QUALIFIED EMPLOYEES.....25

LIST OF TABLES
(CONTINUED)

TABLE 16 EDUCATIONAL ENTRY LEVEL REQUIREMENTS - BY OCCUPATIONAL GROUP....27

TABLE 17 INCENTIVES WHICH ORGANIZATIONS HAVE OR WOULD MAKE AVAILABLE TO EMPLOYEES IN ORDER TO PROMOTE CONTINUED TRAINING OR EDUCATIONAL DEVELOPMENT....29

TABLE 18 ORGANIZATIONAL INCENTIVES - BY STANDARD INDUSTRIAL CLASSIFICATION GROUP....31

TABLE 19 ORGANIZATIONAL INCENTIVES - BY OWNERSHIP....33

TABLE 20 ORGANIZATIONAL INCENTIVES - BY EMPLOYEE SIZE....34

TABLE 21 INTEREST IN CUSTOM-MADE COURSES - NEW HAMPSHIRE AGGREGATE....43

TABLE 22 INTEREST IN CUSTOM-MADE COURSES - BY OWNERSHIP....44

TABLE 23 INTEREST IN CUSTOM-MADE COURSES - BY MAJOR STANDARD INDUSTRIAL CLASSIFICATION....45

TABLE 24 INTEREST IN CUSTOM-MADE COURSE - BY EMPLOYEE SIZE GROUP....46

TABLE 25 WILLINGNESS TO PARTICIPATE IN REGIONAL COOPERATIVE TRAINING PROGRAMS - GROUP AGGREGATE....48

TABLE 26 WILLINGNESS TO COOPERATE IN REGIONAL TRAINING PROGRAMS - BY STANDARD INDUSTRIAL CLASSIFICATION GROUPS....49

TABLE 27 RESPONDENTS WHO INDICATED "HIGH" OR "MODERATE" NEED FOR SPECIFIED TRAINING OPTIONS....50

TABLE 28 RESPONDENTS WHO INDICATED A "HIGH" OR "MODERATE" NEED FOR SPECIFIED TRAINING OPTIONS - BY STANDARD INDUSTRIAL CLASSIFICATION GROUP....51

TABLE 29 PREFERRED SKILL DEVELOPMENT AREAS....54

TABLE 30 TEN MOST FREQUENTLY CHOSEN ACADEMIC PROGRAM AREAS....55

TABLE 31 TEN LEAST FREQUENTLY CHOSEN ACADEMIC PROGRAM AREAS....56

TABLE 32 THREE MOST FREQUENTLY CHOSEN ACADEMIC PROGRAM AREAS BY ORGANIZATIONAL TYPE....57

TABLE 33 EDUCATIONAL PROGRAMS SUGGESTED BY RESPONDENTS, NUMBER TO BE TRAINED, AND STANDARD INDUSTRIAL CLASSIFICATION GROUP....58

LIST OF TABLES
(CONTINUED)

TABLE 34 TEN MOST FREQUENTLY CHOSEN ACADEMIC PROGRAM AREAS AND NUMBER OF DEGREE PROGRAMS AVAILABLE.....65

TABLE 35 HOW WELL INFORMED EMPLOYERS MAY BE ABOUT EDUCATIONAL SERVICES - BY OWNERSHIP.....69

TABLE 36 PROJECTED NUMBER OF NEW HAMPSHIRE ORGANIZATIONS POORLY OR NOT INFORMED AT ALL ABOUT EDUCATIONAL TRAINING CURRENTLY OFFERED IN STATE - BY INDUSTRIAL CLASSIFICATION.....71

TABLE 37 LEVEL OF AWARENESS CONCERNING EDUCATIONAL OFFERINGS - BY EMPLOYEE SIZE GROUP.....72

TABLE 38 ESTIMATED NUMBER OF ORGANIZATIONS WHICH ARE POORLY OR NOT INFORMED AT ALL ABOUT THE EDUCATIONAL TRAINING AND SKILL DEVELOPMENT SERVICES CURRENTLY OFFERED IN NEW HAMPSHIRE- BY COUNTY.....74

INTRODUCTION

FOCUS

There are two basic approaches which might be tried in attempting to ascertain the needs of New Hampshire residents. The first is to ask a selected sample of citizens across the state what kind of continuing education programs they would like to have available. This approach has been tried recently in several states with disastrous results. The problem here lies with the assumptions inherent in the approach; namely, what a person says he or she wants is what a person will purchase. The second approach deals with a narrower set of parameters and focuses not on what people would like to have, but rather what they need to have in terms of continuing education. The analysis focuses on the requirements for each occupation having a signficant representation in this state, the needs of the profit and non-profit sectors for entry level training, and the training/education required for advancement or job retention.

In addition to ascertaining the specific kinds of educational needs of New Hampshire organizations, an assessment must be made of the efforts of post-secondary institutions to meet these needs and their ability to communicate course offerings to the clientele.

By attempting to meet the continuing education needs of New Hampshire employers, colleges and universities will be able to forge cooperative linkages between education, industry and government. As a result, new educational routes will open to provide New Hampshire employers with the qualified highly trained labor force needed to meet the challenges of the 1980's. Hopefully, these new routes will aid individuals in their search for satisfactory employment and provide them with new knowledge and skills to improve their job performance.

BACKGROUND

Over the past three years, the New Hampshire Postsecondary Education Commission has made possible considerable progress in statewide planning in the area of traditional education programs. This success was made possible through the availability of information about traditional students and programs at the statewide level. This information permitted the commission to ascertain major areas of concern and to establish cooperative programs to alleviate them. In the case of non-traditional or continuing education, no such statewide data base exists. Although these types of programs are growing rapidly, federal and state agencies are just beginning to design formal procedures for the collection of data. This project represents the first step in statewide planning for this growth area of postsecondary education. By presenting needs analysis results in terms of occupational classification, sector (profit and non-profit), employer size and geographic location, it will be far easier to find a more appropriate match of educational resources with need.

New Hampshire Governor Hugh J. Gallen has taken particular interest in the project. In an open letter to all New Hampshire employers, the governor said:

> "I think we would all agree that a strong state economy, a continuing high rate of employment, and a reduction in the rate of inflation are the goals that must be given the highest priority over the next several years. The accomplishment of these goals will benefit both the citizens and the industries of the Granite State.
>
> It is the firm belief of this administration that a well-educated, highly trained labor force is essential if these goals are to be achieved. We must improve our ability to produce the qualified manpower necessary to accommodate healthy growth and labor turnover in both profit and non-profit sectors. Furthermore, we must assign the continuing education of ourselves and our employees a high priority if we are to cope with the

> constant changes in knowledge and skills required to give New Hampshire organizations a competitive edge in improved services, new product development, and technological advancement.
>
> It is for these reasons that I am pleased to lend my support to a cooperative effort on the part of state government and New Hampshire's Postsecondary Education Institutions to assemble and coordinate the educational resources to meet the present and future needs of citizens and organizations throughout the state."

In order to best match our educational resources with the specific needs of the many diversified components of our state's economy, the Postsecondary Education Commission has asked the New Hampshire College and University Council (a group of twelve public and private institutions spanning the entire state) to conduct a statewide continuing education needs assessment of profit and non-profit organizations. The results of this assessment will form the basis for a joint effort on the part of New Hampshire educational institutions to assemble the programs that will be of the greatest assistance to New Hampshire organizations and their employees.

Acting on the support of the governor and with financial aid from the New Hampshire Postsecondary Education Commission and the Kellogg Foundation, the New Hampshire College and University Council conducted the Continuing Education Needs Analysis project of which this document is the end result.

METHODOLOGY

This statewide analysis of the continuing education needs of New Hampshire organizations was carried out in four phases.

The first phase involved project planning and research into the state of the art in needs assessments. A selected group of continuing education directors and other interested higher education administrators formed an advisory committee that provided valuable input which helped to form much of the original framework of the program's objectives, structure and design. By utilizing the ERIC computerized research service, the statewide continuing education needs assessment projects of several other states were obtained. While none of the projects focused primarily on the continuing education needs of business and industry, several studies dealt indirectly with these organizations. By combining segments of these studies with our own thoughts concerning the specific continuing education needs in New Hampshire, we were able to formulate an effective design for creating a data base of continuing education information that would assist in statewide continuing education planning. This approach included a variety of survey instruments designed for delivery by mail and through personal interviews.

The second phase of the project involved obtaining a representative mailing list of all New Hampshire organizations. After several false starts, it was determined that no totally accurate list of all New Hampshire organizations was obtainable in an economically feasible format. We were, however, able to obtain from a private source (Dun and Bradstreet, Inc.), a mailing list of approximately 16,000 New Hampshire employers. This was a reasonably accurate sample of the 19,613 establishments estimated by the United States Department of Commerce in their 1977 edition of New Hampshire County Business Patterns. Analysis of the Dun's list of New Hampshire organizations revealed that all New Hampshire

organizations were proportionally represented within their individual standard industrial classification groups, even though the total sample as represented by the Dun's list was slightly smaller than the actual universe as recorded by the Department of Commerce. The mailing list was obtained on magnetic tape format. The data on the tape includes the names and addresses of the organizations, primary standard industrial classification (SIC) codes, the name of the chief executive and individual identification codes. Organizations were ranked on the tape according to employee size.

The third phase of the project involved mail surveys and on-site interviews. Sixteen-thousand, eighty-one New Hampshire organizations received a short form questionnaire designed to give an approximate indication of support for continuing education. With the following exception, all respondents to this first survey received a second, more detailed, follow-up survey or an on-site interview. Those organizations with fewer than fifty employees and who responded in a negative manner concerning interest in continuing education did not receive any further correspondence. Non-respondents to the first questionnaire who had fifty or more employees also received a second, more detailed questionnaire.

On-site interviews were divided geographically among four interview teams. The teams were made up of MBA students from New Hampshire College, Rivier College, Plymouth State College, and the University of New Hampshire at Durham. Each group of MBA students attended an interview training session conducted by NHCUC staff and received general supervision from an on-campus business department faculty member. (The University of New Hampshire team was supervised by the NHCUC staff). Interview candidates were selected on the basis of interest in continuing education, geographic distribution, employee size and equal representation among standard industrial classifications.

The final phase of the study involved the testing and analysis of response data. Survey data computation was facilitated through the use of the statistical package for the social sciences (SPSS) software package and the University of New Hampshire DEC 1090 Computer.

THE SAMPLE

The purpose of the statistics presented in this report is to find those numbers which most accurately communicate the nature of attitudes, characteristics, policies, and events which describe the educational needs of New Hampshire organizations. These numbers can be talked about, remembered, and used as the basis for making decisions, forming opinions, or developing theories concerning the relationship of post-secondary education to New Hampshire business, industry, and service organizations.

Using these statistics demands knowing what they mean and appreciating their limitations. The objective of this section is to determine the amount of relationship between the sample population, from which the conclusions in this report are derived, and the total population of business, industry, and service organizations in New Hampshire.

The following tables are intended to provide a comparison of the characteristics of the respondent group and the actual population of New Hampshire organizations. These tables compare the sample group and total universe in terms of industrial classification, geographic location, and employee size.

TABLE 1

COMPARATIVE ANALYSIS OF ACTUAL NEW HAMPSHIRE
DISTRIBUTION OF INDUSTRY TYPES WITH DUN'S MAILING LIST AND RESPONDENTS
TO FIRST MAIL SURVEY OF 16,081 NEW HAMPSHIRE ORGANIZATIONS

INDUSTRY REPRESENTATION AS A % OF TOTAL FIRMS

STANDARD INDUSTRIAL CLASSIFICATION		ACTUAL N.H.[1] %	DUN'S MAIL LIST[2] %	SURVEY RESPONDENTS %
1-9	AGRI,FOREST FISH	1	1	2
10-14	MINING	0	0	0
15-17	CONTRACT CONST	14	15	11
19-39	MANUFACTURING	8	11	14
40-49	TRANS, COMM, UTIL	4	4	3
50-51	WHOLESALE TRADE	6	8	7
52-59	RETAIL TRADE	30	38	31
60-69	FINANCE,	7	5	9
70-89	SERVICES	28	18	23
	TOTAL	19,613	16,081	1,883

1. Source: County Business Patterns 1977: U.S. Department of Commerce
2. Source: Dun's Market Identifiers, Dun & Bradstreet, Inc., Market Services Division

The overall distribution of Standard Industrial Classification (S.I.C.) groups within the total number of respondents to the first questionnaire approximates the representation of S.I.C. groups among the actual total number of New Hampshire organizations. Only "Manufacturing" seems to be slightly over-represented among the respondents when compared to the actual distribution in New Hampshire of these organizations. It is important to keep in mind that the response rate by organizational type constitutes a reliable sample of the actual distribution of organizational types in New Hampshire. The sample is representative of the whole, therefore, one can accept that the individual questionnaire responses as aggregated by S.I.C. are representative of the prevailing attitudes of the entire group of New Hampshire employers within each group.

The following table compares the geographic distribution of respondents to the first survey with the actual distribution of New Hampshire organizations as reported by the Department of Commerce for 1977.

TABLE 2
COMPARATIVE ANALYSIS OF ACTUAL DISTRIBUTION OF NEW HAMPSHIRE ORGANIZATONS BY COUNTY WITH FIRST SURVEY RESPONDENT POPULATION

	ACTUAL N.H.[1]	% OF TOTAL	RESPONDENTS	% OF TOTAL
BELKNAP	1091	6	95	5
CARROLL	964	5	90	5
CHESHIRE	1259	6	122	7
COOS	821	4	82	5
GRAFTON	1679	9	169	10
HILLSBOROUGH	5854	30	514	30
MERRIMACK	2118	11	193	11
ROCKINGHAM	3605	18	303	17
STRAFFORD	1452	7	98	6
SULLIVAN	763	4	76	4
Total	19,613	100	1,742[2]	100

1 Source: 1977 County Business Patterns, U.S. Department of Commerce
2. 141 Respondents unidentifiable by county, not included

The geographic distribution of respondents matches the actual state distribution almost perfectly with a maximum variance of no more than one percentage point in any given county.

The previous two tables illustrate that the sample population of respondents to the first survey approximates the characteristics of the entire population of New Hampshire organizations in terms of industrial classification types and geographic distribution. The following table presents a further analysis of the survey respondents by employee size.

TABLE 3
COMPARATIVE ANALYSIS OF ACTUAL DISTRIBUTION OF NEW HAMPSHIRE ORGANIZATIONS BY EMPLOYEE SIZE WITH FIRST SURVEY RESPONDENT POPULATION

EMPLOYEE SIZE	ACTUAL[1] N. H.	% OF TOTAL	NUMBER OF RESPONDENTS	% OF TOTAL
1-4	12,026	61.3	618	33.9
5-9	3,463	17.7	472	25.9
10-19	1,969	10.0	298	16.3
20-49	1,312	6.7	206	11.3
50-99	457	2.3	84	4.6
100-249	251	1.3	80	4.4
250-499	91	.5	35	1.9
500-999	34	.2	18	1.0
1000 or more	9	.04	13	.7
Total	19,613	100.00	1824[2]	100.00

1. Source: 1977 County Business Patterns U.S. Department of Commerce
2. Source: Fifty-nine respondents unidentifiable by employee size not included

Judging from the previous table, the distribution of survey respondents by employee size is not representative of the actual distribution in New Hampshire. Of New Hampshire organizations, 61.3% fall into the 1-4 employee size group. Only 33.9% of the survey respondents fit this category. While the 1-4 size group appears to be under represented, the rest of the size group categories are over represented with the degree of over representation increasing with organizational size.

The response to the first questionnaire was approximately 12% or 1883 responses out of a total mailing of 16,081. Of the 1503 more detailed questionnaires sent to the respondents to the first survey, 450 were returned for a return rate of 30%. Of the 896 more detailed questionnaires sent to non-respondents to the first survey, 67 were completed for a return rate of 7.5%. Sixty-eight of the one-hundred organizations originally chosen for on-site interviews were willing to meet with our MBA interview team.

PART I

EDUCATIONAL NEEDS OF NEW HAMPSHIRE ORGANIZATIONS

SECTION I-A

THE INTEREST OF NEW HAMPSHIRE IN FURTHER EDUCATIONAL TRAINING FOR THEIR CURRENT EMPLOYEES

In this section we will explore the educational needs of New Hampshire employers for their current employees. The goal of this part is to find out in general if New Hampshire employers feel that they would like their employees better trained and, if so, which particular employee types are in greatest need.

I-A-1

GENERAL INTEREST IN FURTHER TRAINING

The first mail survey to approximately 16,000 New Hampshire organizations included the question "Would you like present employees (or yourself) better trained?" The responses were as follows:

TABLE 4
WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED? - NEW HAMPSHIRE AGGREGATE

Response	Number	Percent
Yes	933	50%
Somewhat	609	32%
No	286	15%
Missing	54	3%
Total	1882	100%

Of the 1,828 respondents to this question, 1,542 (or 85%) responded either "yes" or "somewhat" with 933 (or 50%) of these responding "yes." This high response indicates a general consensus that further employee training is desirable and that employers feel the need for better training for their employees.

BY ORGANIZATIONAL TYPE:

The need for better training of employees appears to be high in all New Hampshire organizations. However, it is useful to examine individual organizational types in detail in order to ascertain which have a relatively greater need for further training than others. The table below arranges questionnaire respondents by Standard Industrial Classification Group.

TABLE 5
WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED? -
BY ORGANIZATIONAL CLASSIFICATION, NUMBER OF RESPONDENTS AND % OF ROW

SIC GROUP	COUNT / ROW %	YES	SOMEWHAT	NO	NO RESPONSE	TOTAL
Agri, Forest, Fish		10 36%	11 39%	7 25%	0 -	28
Contrct. Constr.		110 54%	72 36%	15 7%	5 2%	202
Manufacturing		135 52%	86 33%	30 12%	9 3%	260
Trans, Comm, Util		37 59%	20 32%	6 10%	0 -	63
Whol. Trade		51 38%	49 36%	35 26%	0 -	135
Retail Trade		279 48%	186 32%	101 17%	15 3%	581
Fin.,Ins., R.E.		92 56%	40 25%	22 13%	9 6%	163
Services		209 49%	138 32%	68 16%	15 3%	430
Governmental		10 50%	7 35%	2 10%	1 5%	20
						1882

While the need for further training is evident in all groups, it is clear that "Finance, Insurance, and Real Estate," "Contract Construction," and "Transportation" organizations lead the field in desire for further training.

"Wholesale Trade" organizations and "Agricultural, Forest, and Fishery" operations indicate a somewhat smaller need.

BY EMPLOYEE SIZE:

In order to examine the relationship between the size of an organization and the perceived need for continuing education for employees, the table below groups respondents by employee size.

TABLE 6
WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED? -
BY EMPLOYEE SIZE, (NUMBER OF RESPONDENTS AND % OF ROW)

SIZE GROUP	COUNT ROW %	YES	SOMEWHAT	NO	NO RESPONSE	TOTAL N
Missing		17	9	8	25	59
		29%	15%	14%	42%	
1-9		519	337	215	18	1089
		48%	31%	20%	2%	
10-19		142	118	33	5	298
		48%	40%	11%	2%	
20-49		122	62	22	0	206
		59%	30%	11%	-	
50-99		49	30	3	2	84
		58%	38%	4%	2%	
100-499		67	41	4	3	115
		58%	36%	3%	3%	
500+		17	12	1	1	31
		55%	39%	3%	3%	
						1882

The number of "Yes" and "Somewhat" responses is high regardless of size group. By combining the "Yes" and "Somewhat" responses it is apparent that the interest in having employees better trained increases directly with employee size. The larger the organization the greater the need.

BY OWNERSHIP:

The next table illustrates the relationship between interest in having employees better trained and type of organizational ownership.

TABLE 7
COMPARATIVE RANKING OF RESPONDENTS TO
"WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED?"
BY OWNERSHIP

OWNERSHIP	% "YES"	TOTAL RESPONDENTS
OTHER	61.1%	36
PUBLIC LOCAL	53.3%	30
PRIVATE NONPROFIT	51.1%	94
PUBLIC FEDERAL	50.0%	6
PRIVATE PROFITMAKING	49.8%	1659
PUBLIC STATE	20.0%	5
		1830

It appears that "Public" and "Non-Profit" organizations have a slight edge over "Private Profitmaking" organizations in desire for better training for their employees. Only 20% of the "Public State" organizations responded "Yes." However, 40% of the "Public State" organizations responded "Somewhat" (not shown) to this question. N. B. the total number of respondents falling in the Public Federal and Public State cells are so low as to allow the possibility that these responses may not be representative of the entire population of federal and state organizations.

BY GEOGRAPHIC LOCATION:

The map on the next page illustrates the geographic distribution of organizations that would like their employees better trained. The information presented includes: the number of respondents, the percentage of those respondents who answered "Yes," and the projected number of organizations within the county that would like their employees better trained.

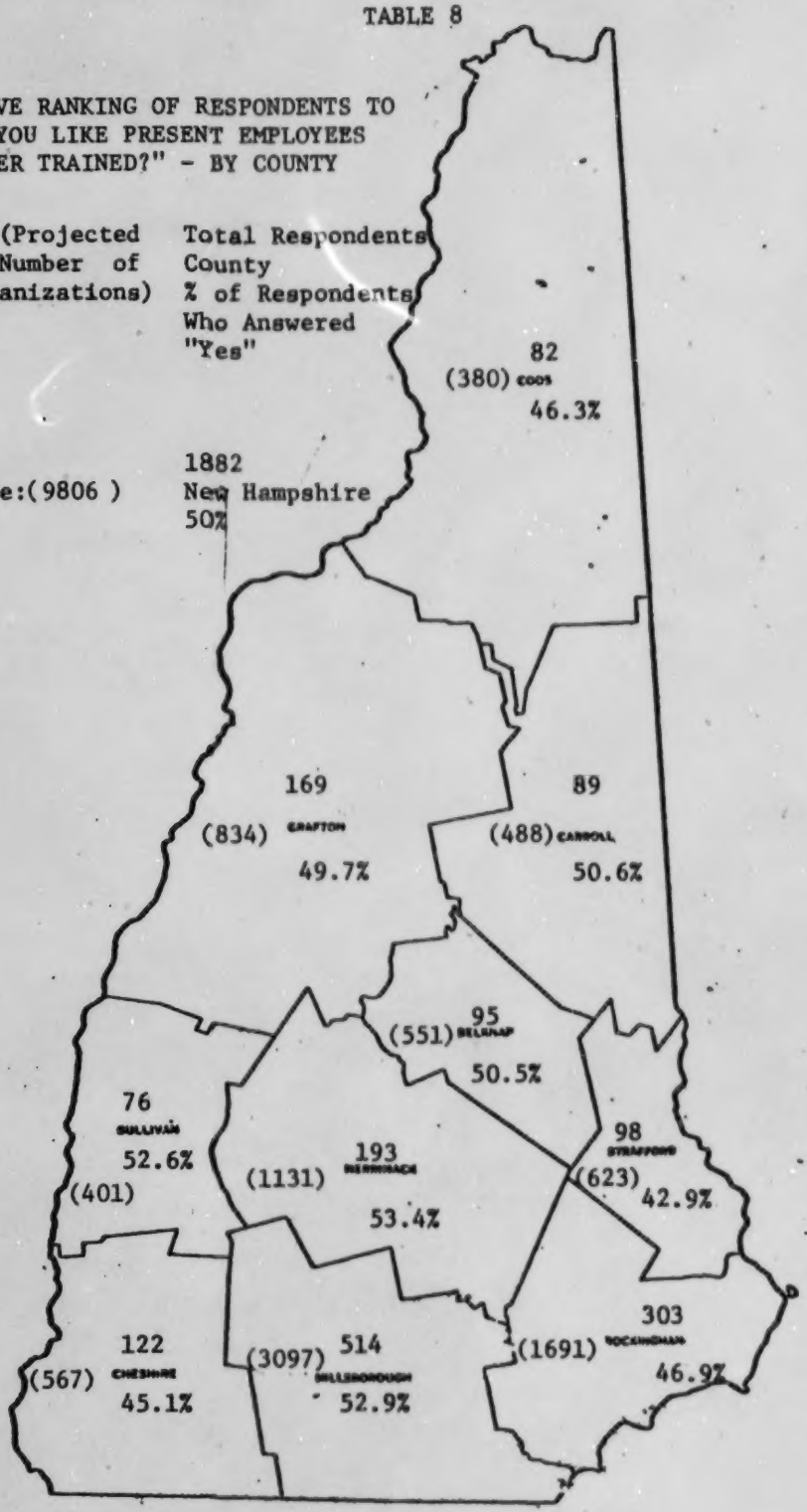
The highest rate of "Yes" responses to the question "Would you like employees better trained?" occurs in Merrimack County (53.4%). However, the county with the largest number of organizations projected to have the same preference for having their employees better trained is Hillsborough County with 3,097 projected organizations.

TABLE 8

COMPARATIVE RANKING OF RESPONDENTS TO "WOULD YOU LIKE PRESENT EMPLOYEES BETTER TRAINED?" - BY COUNTY

Legend: (Projected Number of Organizations) Total Respondents County % of Respondents Who Answered "Yes"

Aggregate:(9806) 1882 New Hampshire 50%



U.S. DEPARTMENT OF COMMERCE Social and Economic Statistics Administration BUREAU OF THE CENSUS

999

With "Yes" response rates ranging from 43% to 53%, it is apparent that interest in better trained employees occurs very frequently among New Hampshire organizations, regardless of county. However, in terms of absolute numbers, Hillsborough, Rockingham, and Merrimack Counties far exceed the rest in projected number of organizations that share this concern.

I-A-2

OCCUPATIONAL TYPES HAVING GREATEST NEED

In addition to ascertaining the employer's preference for better training for employees, surveyed recipients were asked to rank their organization's need for certain training options among three specific classes of employees by responding to the following question:

"Please rank your organization's need for the following training options."

Use 1 = High Need 2 = Moderate Need
3 = Low Need 4 = No Need

The following table gives an aggregate breakdown of the responses to this question. In this three-dimensional matrix, each response indicates the level of need and the specific preferred kind of training option for each employee class.

TABLE 9
RESPONDENTS WHO INDICATED "HIGH" OR MODERATE" NEED FOR:
SPECIFIED TRAINING OPTIONS

Count, % of Total Respondents (1883)	Professional Technical Management	Clerical	Craft Operatives All Others	Aggregate Need By All Employee Types
Short Term Training Sessions on Specific Needs	973 52%	591 31%	749 40%	41%
Special Courses For Upgrading and Developing New Skills	849 45%	492 26%	651 35%	35%
Courses Leading To A College Degree	247 13%	89 5%	85 5%	7%
Aggregate Need For All Training Options	36.7%	20.6%	26.7%	

This table describes the "high need" or "moderate need" responses only. For example, 52% of the 1,883 survey respondents indicates that they perceive a high or moderate need for short-term training sessions on specific needs for the "Professional, Technical, or Managerial" employee group.

One can conclude from these responses that the occupational type having the largest need for further training are professional, technical, and managerial employees. Over half of the employers surveyed (52%) indicated a high or moderate need for short-term training sessions and 45% of those surveyed indicated a high or moderate need for special courses for this group. Ranked next are "Craft Operatives and all Others" with 40% and 35% of the respondents indicating a high or moderate need for "Short Term Training Sessions" or "Special Courses" respectively. The "Clerical Employees" category is third in rank order. Almost one-third of those who responded to the survey indicated a high or moderate need for "Short-Term Training Sessions on Specific Needs" for clerical employees. One-quarter indicated a high or moderate need for "Special Courses for Upgrading and Developing New Skills" for clerical employees. It is significant to note that "Courses Leading to a College Degree" received positive responses from only 7% of those who returned the questionnaire.

To summerize, training for "Professional, Technical, and Managerial" employees appear to be the highest order of priority for employers, drawing 36.7% of the positive responses. Training for "Craft Operatives and All Others" ranks second with 26.7%, while training for "Clerical" workers follows a close third with 20.6% of the positive responses.

BY ORGANIZATIONAL TYPE:

The following table provides an in-depth look at the training needs for professional, clerical, and craft operatives broken down by specific standard industrial classifications.

TABLE 10
% OF RESPONDENTS WHO INDICATED A "HIGH OR MODERATE" NEED FOR TRAINING:
BY ORGANIZATIONAL CLASSIFICATION AND EMPLOYEE TYPE

% OF ROW ( ) COLUMN RANK	PROFESSIONAL	CLERICAL	CRAFT	AGGREGATE
Agri,Forest,Fish	(8) 32.1%	(9) 15.4%	(7) 22.6%	(9) 23.4%
Contrct.Constr	(7) 35.1%	(5) 21.3%	(1) 39.4%	(3) 31.9%
Manufac	(6) 36.8%	(4) 21.9%	(3) 35.3%	(4) 31.3%
Trans,Comm, Util	(2) 46.9%	(3) 28.2%	(2) 39.1%	(1) 38.1%
Whol.Trade	(9) 28.6%	(7) 19.8%	(6) 23.1%	(8) 23.8%
Retail Trade	(5) 36.9%	(6) 20.5%	(4) 25.0%	(6) 27.5%
Fin.,Ins.,RE.	(3) 41.3%	(1) 31.9%	(9) 11.3%	(5) 28.2%
Services	(4) 39.5%	(8) 19.1%	(5) 22.8%	(7) 27.1%
Governmental	(1) 55.0%	(2) 31.7%	(8) 21.7%	(2) 36.1%

Over all, the "Transportation, Commerce, and Utilities" group appears to lead the rest in need for training for their employees. This group is ranked first in the "overall aggregate" column with 38.1% of the respondents indicating a high or moderate need for further training. "Governmental" organizations ranked a close second with 36.1% and "Contract Construction" led the rest with 31.9% of their respondents indicating a high or moderate need for the listed training options.

It is important to note that, with the exception of "Transportation, Communication, and Utilities," no individual SIC group has a consistently high need in each of the three employee categories. "Contract Construction," for example, ranks first in need for further training for its "Craft Operatives and all Other" employees, but drops to fifth for "Clerical" and seventh for "Professional" training needs. Furthermore, there appears to be a high degree of differentiation in preference for the kinds of training options desired. For example, while 59.4% of the respondents in the contract construction field indicated a need for short-term training for their craft operatives or all others, only 5.5% of this group indicated interest in courses leading to a college degree.

SECTION I-B

NEEDS FOR FUTURE EMPLOYEES

The objective of this section is to assess the role that continuing education could play in the preparation of future employees for New Hampshire organizations. Questions in this area were designed to (a) uncover the specific industrial classification groups that are having the greatest difficulty finding qualified employees, (b) describe the occupational categories which are most difficult to fill, and (c) describe the minimum educational background New Hampshire employers require their new employees to have.

I-B-1

FINDING QUALIFIED EMPLOYEES

Employers were asked "Do you have difficulty finding qualified employees?" The results appear below.

TABLE 11

	Yes	Somewhat	No	Total
Do you have difficulty finding qualified employees?	649	693	493	1835
	35%	38%	27%	100%
		73%		

(Note: 47 blank responses not included)

The survey recipients who responded to this question numbered 1,835. Of these respondents, 1,342 (or 73%) responded "Yes" or "Somewhat."

BY ORGANIZATIONAL TYPE:

In order to zero in on specific organizations that indicated difficulty finding qualified employees, the following table breaks respondents out by industrial classification.

TABLE 12

"DO YOU HAVE DIFFICULTY FINDING QUALIFIED EMPLOYEES?"
- BY ORGANIZATIONAL CLASSIFICATION

"Yes" Rank	Count Row %	Yes	Somewhat	No	Row Total
5	Agri, Forest, Fish	9 32.1	10 35.7	10 28.6	28 1.5
2	Contrct. Constr	82 40.8	79 39.3	33 16.4	201 10.7
1	Manufac.	124 47.7	86 33.1	44 16.9	260 13.8
4	Trans, Comm, Util	22 34.4	29 45.3	13 20.3	64 3.4
7	Who. Trade	36 26.7	51 37.8	47 34.8	135 7.2
6	Retail Trade	183 31.5	214 36.8	169 29.1	581 30.9
8	Fin.,Ins., RE.	41 25.2	68 41.7	49 30.1	163 8.7
3	Services	149 34.7	146 34.0	123 28.6	430 22.8
9	Governmental	3 15.0	10 50.0	7 35.0	20 1.1
	Column Total	649 34.5	693 36.8	493 26.2	1882 100.0

Note: 47 Blank Responses are included in calculations but not shown.

"Manufacturers" easily rank highest among organizational groups as having the greatest difficulty finding qualified employees, with 47.7% of the 260 manufacturing respondents indicating "Yes." By noting the rank order indicated in the above table, it can be observed that "Contract Construction," "Services," and "Transportation, Communication, and Utilities" follow "Manufacturing" in perceived difficulty finding qualified

employees. However, 50% of their group responded "somewhat" to this question.

BY EMPLOYEE SIZE:

The following table breaks the respondents to this question down by employee size.

TABLE 13

"DO YOU HAVE DIFFICULTY FINDING QUALIFIED EMPLOYEES?"
- BY EMPLOYEE SIZE

"Yes" Rank	Count Row %	Yes	Somewhat	No	Row Total
9	1-4	180	170	254	618
		29.1	27.5	41.1	32.8
4	5-9	189	175	103	471
		40.1	37.2	21.9	25.0
6	10-14	62	85	36	188
		33.0	45.2	19.1	10.0
8	15-19	35	50	24	110
		31.8	45.5	21.8	5.8
5	20-49	78	93	34	206
		37.9	45.1	16.5	10.9
7	50-99	27	42	13	84
		32.1	50.0	15.5	4.5
3	100-249	34	36	10	80
		42.5	45.0	12.5	4.3
2	250-499	15	17	3	35
		42.9	48.6	8.6	1.9
10	500-999	4	10	4	18
		22.2	55.6	22.2	1.0
1	1000 +	7	4	2	13
		53.8	30.8	15.4	0.7
	Column Total	649	693	493	1882
		34.5	36.8	26.2	100.0

Note: 47 Blank responses and 59 unidentifiable respondents included in calculations but not shown.

By looking at the rank order of "yes" responses by employee size group, we see that there is no clear relationship, either ascending or descending, between employee size and difficulty finding employees. The same holds true for the "no" responses. Further analysis of individual industry classification groups by employee size (not shown) yielded the same lack of relationship between employee size and difficulty finding qualified employees for every organizational group.

One must conclude, that though there is a high frequency of employers who are having difficulty finding qualified employees, the frequency of this occurance does not change according to the size of the organization as measured by number of employees. The following table explores the relationship between difficulty finding qualified employees and ownership.

BY OWNERSHIP:

TABLE 14
"DO YOU HAVE DIFFICULTY FINDING QUALIFIED EMPLOYEES?"
- BY OWNERSHIP

Yes Rank	Count / Row %	Missing	Yes	Somewhat	No	Row Total
-	Missing	22	14	11	5	52
		42.3	26.9	21.2	9.6	2.8
1	Priv.	21	601	610	427	1659
	Profit	1.3	36.2	36.8	25.7	88.2
5	Priv.	3	17	37	37	94
	Nonprof.	3.2	18.1	39.4	39.4	5.0
2	Publ. Fed	1	2	3	0	6
		16.7	33.3	50.0	0.0	0.3
6	Publ.	0	0	3	2	5
	State	0.0	0.0	60.0	40.0	0.3
4	Publ. Loc	0	6	14	10	30
		0.0	20.0	46.7	33.3	1.6
3	Other	0	9	15	12	36
		0.0	25.0	41.7	33.3	1.9
	Column	47	649	693	493	1882
	Total	2.5	34.5	36.8	26.2	100.0

Observing the rank order of "yes" responses indicates that "Private Profit-making" organizations have the greatest perceived difficulty finding qualified employees, with "Public/Federal" organizations coming in a close second. "Public/ State" organizations are last in our rank order. However, 60% of these organizations indicated a "somewhat" response to this question.

BY GEOGRAPHIC LOCATION:

The following map illustrates the "yes" responses to difficulty finding qualified employees by county.

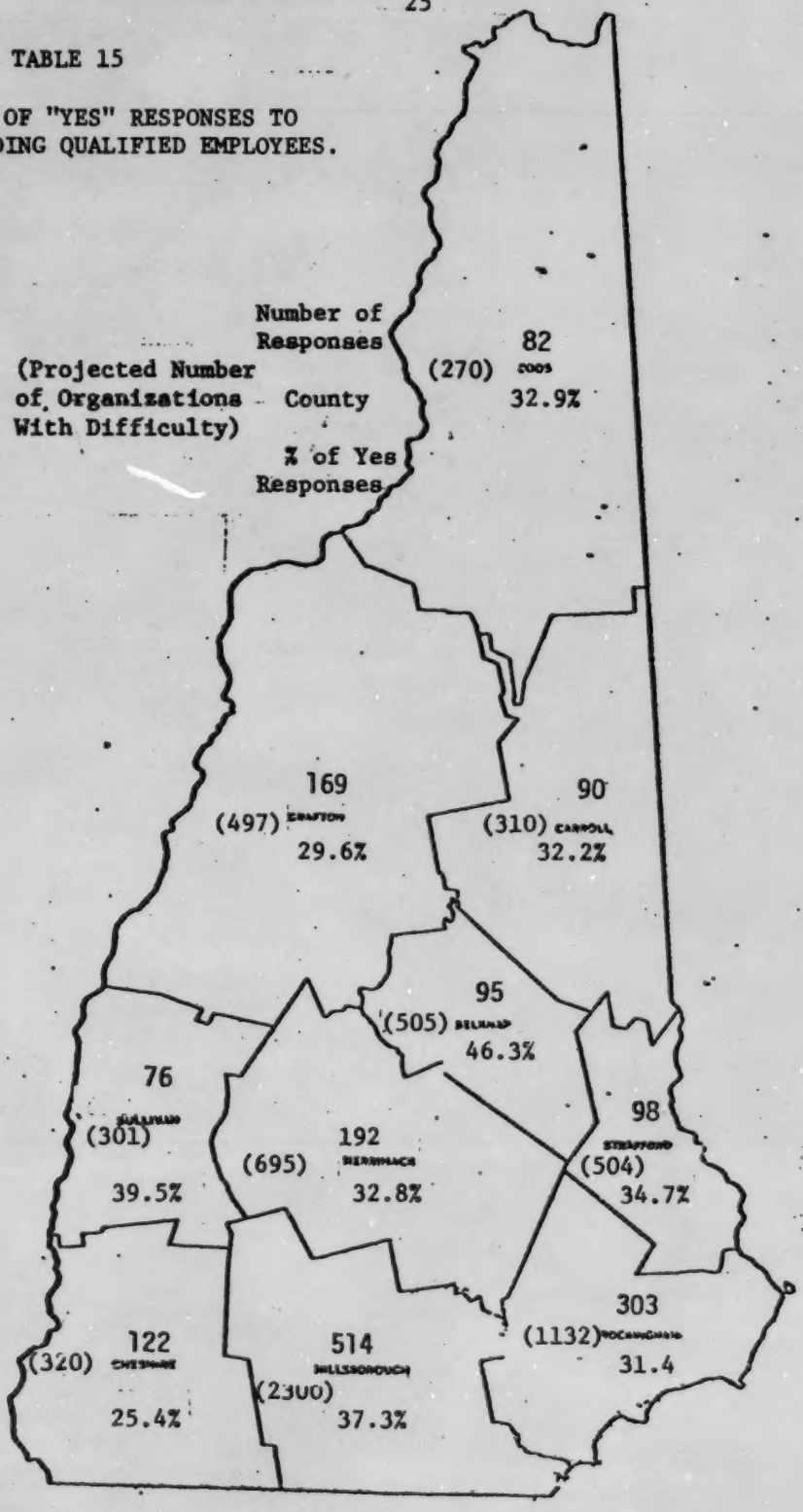
Belknap, Sullivan, and Hillsborough Counties have the highest frequency of organizations having difficulty finding qualified employees (46.3%, 39.5%, and 39.3% respectively).

The numbers in parenthesis indicate the projected number of actual organizations within the county that the sample group respresents. For example, in Hillsborough County 39.3% of the 514 respondents to the survey answered "Yes" to the question "Do you have difficulty finding qualified employees." If we assume that the 514 respondents are representative of the entire population of 5854 organizations in the county, then the percentage of "Yes" responses in the sample group could apply to the entire population. By multiplying the sample "Yes" response rate (39.3%) by the county population of organizations (5854) we arrive at a projected number of 2300 organizations within that county which may be having difficulty finding qualified employees. It should be noted that this is a very conservative estimate as this only includes the "Yes" responses and does not include 36% of the respondents who answered "Somewhat" to the question.

The county with the highest number of organizations with difficulty finding employees is Hillsborough with 2300. Rockingham and Merrimack follow

TABLE 15

FREQUENCY OF "YES" RESPONSES TO DIFFICULTY FINDING QUALIFIED EMPLOYEES.



Number of organizations projected from "1977 County Business Patterns." (U. S. Department of Commerce Social and Economic Statistics Administration Bureau of the Census)

599

with 1132 and 695 respectively. Together these three counties account for 56% of the entire group of respondents who answered "Yes" to difficulty finding qualified employees.

I-B-2

SPECIFIC HARD-TO-FILL OCCUPATIONAL CATEGORIES

In addition to the short form questionnaire, 581 New Hampshire organizations completed a second more detailed survey concerning their continuing education needs. In this survey employers were asked if there were specific occupational categories where they were having difficulty finding employees. Of the 581 respondents, 47.5% (276) responded "yes" to this question. Employers who responded "Yes" to this question were asked to specify, in order of difficulty, the job titles of those occupational categories where they were having difficulty finding employees. Three-hundred and forty-nine job titles were listed. Of these, 24.4% (85) were those which would generally require at least an associate's degree as basic preparation for the position. Positions which occurred most frequently (among those that require postsecondary preparation) were in the health care, data processing, office management, and education fields. Engineers and engineering technicians were also in high demand.

A complete list of all job titles entered in response to this question and the number that respondents currently employ in these fields by standard industrial classification group, can be found in the appendix.

I-B-3

MINIMUM EDUCATION REQUIREMENTS

New Hampshire employers were asked through both the second long-form mail survey and the on-site personal interviews to indicate the minimum educational requirements for an entry level position in each of four occupational groups:

administrators, professional technical, clerical, and craft operatives. One-thousand eight-hundred and thirty-seven employers responded to this question. The following table illustrates responses by these occupational groups.

TABLE 16
EDUCATIONAL ENTRY LEVEL REQUIREMENTS-BY OCCUPATIONAL GROUP

Count Column %	ADMINISTRATION	PROFESSIONAL	CLERICAL	CRAFT	GROUP AGGREGATE
None	16 3.6%	10 2.0%	15 3.1%	51 12.0%	92 5.0%
Less than a High School Education	0 -	7 1.4%	16 3.3%	96 22.6%	119 6.5%
A High School Education	79 18.0%	103 20.9%	347 72.4%	182 42.8%	711 38.7%
Some College	152 34.5%	117 23.7%	49 10.2%	18 4.2%	336 18.3%
A College Graduate	159 36.1%	114 23.1%	2 .4%	1 .2%	276 15.0%
Vocational Education Training	24 5.5%	130 26.4%	45 9.4%	70 16.5%	269 14.6%
Other Requirements	10 2.3%	12 2.4%	5 1.0%	7 1.6%	34 1.9%
					1,837

The "Group Aggregate" column indicates that the most frequent requirement for an entry level position is a high school education. In the occupational group "Administration," "College Graduate" with 36.1% and "Some College" with 34.5% are far more frequent entry level requirements than other levels of educational preparation. In the "Professional" group, "Vocational Education Training" is the most frequent response with "College Graduate" and "Some College" a close second, and "High School Education" a very close third. In the "Clerical" group, the minimum educational entry level requirement moves down to "High School Education," garnering 72.4% of the respondents. "Some

College" and "Vocational Education Training" are minimum requirements for 20% of the clerical positions (10% each). The "Craft" occupational group accounts for the majority of "Less Than a High School Education" and "none" responses. A "High School Education" is the most frequent requirement for an entry level position in the "Craft Operative" group.

Approximately two per cent of the respondents indicated "Other Requirements." The most common of these other requirements were specified as job experience. Other comments included common sense, business school, and insurance courses.

In addition to looking at the educational requirements by occupational group, organizations were broken down by standard industrial classification. However, after examining individual organizational groups, no significant deviation from the distribution found in the above table occurred.

SECTION I-C

EDUCATIONAL BENEFITS AND SERVICES OF NEW HAMPSHIRE ORGANIZATIONS

The kinds of sacrifices in terms of hours lost on the job, tuition payments bonuses, etc., that an employer is willing to make in order to encourage employees to train for a new assignment or upgrade and develop new skills are a good indication of the organization's interest in additional training. The more an employer is willing to sacrifice in time and money, the greater the likelihood of need.

I-C-1

ORGANIZATIONAL INCENTIVES

Employers were asked to check each of the following incentives which his or her organization had or would make available to employees in order to promote continued training or educational development. The tabulated results appear below:

TABLE 17
INCENTIVES WHICH ORGANIZATIONS HAVE OR WOULD MAKE AVAILABLE TO EMPLOYEES IN ORDER TO PROMOTE CONTINUED TRAINING OR EDUCATIONAL DEVELOPMENT

INCENTIVE	% OF 1880 RESPONDENTS	NUMBER OF RESPONSES	RANK
ON-THE-JOB TRAINING	68.7	1289	1
ORGANIZED IN-SERVICE TRAINING PROGRAMS FOR SPECIFIC AREAS OF EMPLOYEE DEVELOPMENT	31.6	594	3
PAYMENT FOR SOME OR ALL TUITION AND OTHER EXPENSES AT AREA EDUCATIONAL INSTITUTIONS	39.1	734	2
RELEASE TIME TO ATTEND EDUCATIONAL INSTITUTIONS	27.8	522	5
RELEASE TIME TO TRAIN ON-THE-JOB	20.3	381	6
ADDITIONAL PAY AND/OR PROMOTION BASED ON EDUCATIONAL ACHIEVEMENTS	30.4	571	4
OTHER	4.6	86	8
NONE	9.3	175	7

Of the 1,880 organizations that responded to this question, 1,289 or 68.7% provide on-the-job training for their employees. Of course, in many respects, on-the-job training is not an incentive but rather a mandated requirement of employment. Nevertheless, the fact that almost 70% of all New Hampshire organizations engage in the educational activity of providing or making available on-the-job training signifies an area of high potential for interface between educational resource providers and New Hampshire employers who may seek to improve or develop their on-the-job programs.

Thirty-nine percent of the total respondents indicated that they provide or would make available payment for some or all tuition and other expenses at area educational institutions. Over 30% of the total respondents indicated that they provide or would make available additional pay and/or promotion based on educational achievement. When an employer is willing to provide the financing for educational training, it is reasonable to assume that that employer perceives a high need for such training and is willing to make significant sacrifices to get it.

Only 9.3% of the employers indicated that they have or would make available no educational incentives for their employees. Since nine out of ten employers are willing to sacrifice to some degree in order to provide training for their employees, there appears to be a very wide-spread and significant awareness of need for educational training.

BY ORGANIZATIONAL TYPE:

The following table gives a breakdown of educational incentives by organizational classification. In this table we see that within individual industrial classification groups, "Transportation, Communication, Utilities" has the highest number of organizations within its group offering on-the-job

TABLE 18

ORGANIZATIONAL INCENTIVES - BY STANDARD INDUSTRIAL CLASSIFICATION GROUP

(Number and % of Classification Group)

STANDARD INDUSTRIAL CLASSIFICATION GROUP	ON-JOB TRAINING	IN-SERVICE TRAINING	PAID TUITION	RELEASE TIME OFF-JOB	RELEASE TIME ON-JOB	MORE PAY AND/OR PROMOTION	OTHER	NONE	RESPONDENTS
Agriculture, Forest, Fish	19 70.4%	7 25.0%	7 25.0%	4 14.3%	8 28.6%	8 28.6%	2 7.1%*	2 7.1%	28
Contract Construction	145 72.5%	33 16.4%	52 25.9%	36 17.8%	18 8.9%	70 34.7%	8 4.0%	19 9.5%	201
Manufacturer	191 73.7%	85 32.7%	139 53.7%	49 18.9%	53 20.4%	89 34.2%	13 5.0%	15 5.8%	260
Transport'n, Comm., Util.	52 81.3%*	33 51.6%	33 51.6%	17 27.0%	13 20.6%	25 39.1%*	2 3.1%	2 3.1%	64
Wholesale Trade	79 58.5%	35 25.9%	54 40.3%	42 31.1%	26 19.4%	51 37.8%	7 5.2%	19 14.1%*	135
Retail Trade	390 67.2%	167 28.8%	173 29.9%	137 23.6%	108 18.6%	155 26.8%	23 4.0%	70 12.1%	580
Finance, Insurance, Real Estate	114 69.9%	72 44.2%*	100 61.3%*	67 41.1%*	45 27.6%	43 26.4%	11 6.7%	7 4.3%	163
Services	288 67.3%	155 36.0%	170 39.5%	164 38.3%	103 24.0%	126 29.3%	19 4.4%	39 9.1%	429
Government	11 55.0%	7 35.0%	6 30.0%	6 30.0%	7 35.0%*	4 20.0%	1 5.0%	2 10.0%	20
Total									1880

* Indicates organizational type with highest frequency of incentive at column head.

training. 81.3% of all the respondents who fall into this category offer on-the-job training for their employees.

As has been previously observed, "Payment for Some or All Tuition and Other Expenses at Area Institutions" ranks second among all respondents with 39.1% of the total respondents. In the above example, we see that the greatest frequency of paid tuition occurs in "Finance, Insurance, and Real Estate" organizations. The same organizations also lead the field in the greatest frequency of offering both "In-Service Training" and "Release Time to Train Off-The-Job."

Additional pay and/or promotion based on educational achievements is a strong incentive motivating the continuing education student. This incentive occurs most frequently in the "Transportation, Communication and Utilities" group with "Wholesale Trade," "Contract Construction," and "Manufacturing" following close behind.

While no organizational group seems to be outstanding in their lack of educational incentives, "Wholesale Trade" appears to offer the least with 14.1% of their organizations indicating that they offer no incentives.

BY OWNERSHIP:

The following list gives a breakdown of educational incentives by type of ownership.

It can be readily observed that "Public/Federal" organizations offer educational incentives most often and have the highest frequency of "Yes" responses in five of seven incentive categories.

The ownership group with the highest number of organizations in the state is "Private Profit Making." It is encouraging to note that less than 10% of the respondents in this population responded with "None."

TABLE 19

ORGANIZATIONAL INCENTIVES - BY OWNERSHIP

(Number and % of Classification Group)

OWNERSHIP	ON-JOB TRAINING	IN-SERVICE TRAINING	PAID TUITION	RELEASE TIME OFF-JOB	RELEASE TIME ON-JOB	MORE PAY AND/OR PROMOTION	OTHER	NONE	TOTAL RESPONDENTS
Missing	22 42.3%	12 23.1%	18 34.6%	8 15.4%	6 11.5%	6 11.5%	2 3.9%	3 5.8%	52
Private Profit	1148 69.4%	492 29.7%	634 38.3%	439 26.5%	322 19.4%	516 31.1%	77 4.6%	158 9.5%	1658
Private Nonprofit	72 77.4%*	53 56.4%	45 47.9%	46 49.5%	31 33.0%	30 31.9%	2 2.1%	5 5.3%	94
Public Federal	4 66.7%	5 83.3%*	4 66.7%*	5 83.3%*	2 33.3%*	0 —	1 16.7%*	0 —	6
Public State	0 —	2 40.0%	2 40.0%	3 60.0%	1 20.0%	2 40.0%*	0 —	2 40.0%*	5
Public Local	19 63.3%	14 46.7%	13 43.3%	11 36.7%	10 33.3%*	6 20.0%	2 6.7%	3 10.0%	30
Other	24 66.7%	16 44.4%	18 50.0%	10 27.8%	9 25.0%	11 30.6%	2 5.6%	4 11.1%	36
Total									1881

* Indicates group with highest frequency within its membership.

In "Public State" we get conflicting data. A rather high frequency of incentives in all categories, plus a high frequency rate in the "none" category may indicate that state organizations are uncertain as to state government policy toward educational incentives.

BY EMPLOYEE SIZE:

The following table is a breakdown of educational incentives by employee size group.

TABLE 20

ORGANIZATIONAL INCENTIVES - BY EMPLOYEE SIZE

(Number and % of Classification Group)

EMPLOYEE SIZE	ON-JOB TRAINING	IN-SERVICE TRAINING	PAID TUITION	RELEASE TIME OFF-JOB	RELEASE TIME ON-JOB	MORE PAY AND/OR PROMOTION	OTHER	NONE	TOTAL RESPONDENTS
Missing	25 42.4%	12 20.3%	14 23.7%	11 18.6%	7 11.9%	10 16.9%	1 1.7%	4 6.8%	59
1-9	700 64.2%	256 23.5%	333 30.6%	291 26.7%	184 16.9%	291 26.7%	59 5.4%	139 12.8%	1090
10-19	217 73.1	101 34.0%	120 40.4%	95 32.0%	62 20.9%	115 38.7%	9 3.0%	19 6.4%	297
20-49	165 80.1%	86 42.0%	121 59.3%	52 25.4%	48 23.5%	76 36.9%	9 4.4%	6 2.9%	206
50-99	59 70.2%	38 45.2%	50 60.2%	29 34.9%	31 36.9%	30 36.1%	1 1.2%	3 3.6%	84
100-499	94 82.5%	75 65.8%	70 61.4%	34 29.8%	34 29.8%	38 33.3%	5 4.4%	3 2.6%	114
500+	29 93.5%	26 83.9%	26 83.9%	10 32.3%	15 48.4%	11 35.5%	2 6.5%	1 3.2%	31

There appears to be a high correlation between employee size and incentives offered. In the majority of cases, as the size of the organization increases, so does the frequency of incentives offered. The frequency of the "In-Service

Training" incentive increases directly with the employee size group as does "Paid Tuition." Both "Release Time Off-The Job" and "Release Time On The Job" increase with employee size (some degree of fluctuation within individual cells). The "Promotion and/or More Pay" incentive seems to drop off rapidly at the low end, increase rapidly at the high end and level off at approximately 35% in the mid range or organization size. It is interesting to note that the offer of increased pay or promotion is as frequent in the 10-14 employee size group as in the 1,000+ size group.

As would be expected, the "No Incentives" response decreased in direct proportion with employee size. The "Other" incentives category which served as a catchall for miscellaneous incentives proved to have no statistical significance as related to employee size.

I-C-2

OVERVIEW OF ORGANIZATIONAL FINANCIAL AID FOR EDUCATION AND CAREER COUNSELING POLICIES

Sixty-eight New Hampshire organizations received personal interviews by MBA students. While every standard industrial classification group received at least one interview "Manufacturing" and "Service" organizations received forty-four of the sixty-eight on-site interviews. Questions included all of the subject areas that were included in the mail surveys received by other New Hampshire organizations, and also several additional questions which covered education finance, counseling, and program design. This section will deal with organizational financial aid policies and counseling programs.

A. Tuition Refund Policies

Of the sixty-eight organizations interviewed, fifty indicated that their organization has a policy for helping employees finance their education. Of these, forty-four indicated that their organizations offer a tuition refund program.

B. Who Qualifies

Thirty-two of the forty-four organizations which offer tuition refund programs, make those programs available to all full-time personnel. Seven include part-time personnel in their programs, and twelve offer tuition refund benefits for persons in specific job categories only. These categories include salaried personnel, administrators, supervisors, machinists (one case), and in one case of a family owned business, family members only.

C. Subject Areas

All of the employers interviewed indicated that course work subject areas must be job related or consistent with job requirements in order to receive educational tuition aid benefits. One organization gives partial aid for what they term "nice to know" subjects, and two of the governmental organizations, due to union contracts and specific line-item budgets, limit educational tuition aid to specific subject areas.

D. Grade Requirements/Percent of Funding

Thirty-six of the organizations interviewed have formal policies regarding grade requirements for tuition aid. Of these, nineteen supply aid for successful completion of the course only; fifteen require grade C or better; and one pays all tuition costs regardless of performance. The majority of funding policies supply 100% of tuition and, in some cases, expenses and fees. Some programs require a grade of A or B for graduate courses and C for undergraduate courses in order to receive 100% reimbursement. Others give 100% reimbursement for A, 90% for B, 85% for C; and 75% for D; while another gives 100% for B or better, and 70% for C. There were two cases of 80% funding regardless of grade, one case of 75%, and one case of 50% funding regardless gardless of grade. One organization eliminates an employee's tuition support for any future courses if a course is failed.

E. Educational Loans

Of the sixty-eight organizations interviewed, only three indicated an educational loan policy. Of these, one provides loans for career-related courses for senior level executives only and requires a B for graduate and a C for undergraduate level courses.

Another allows employees to borrow against their profit sharing plan for educational courses. One can conclude from the few instances of organizational loan programs that this kind of educational incentive is not prevalent among New Hampshire organizations.

F. Other Characteristics Of Organization Tuition Aid Policies

In general, employers appear to support educational programs that deal with specific job-related subjects. While many organizations do not have formal policies regarding educational training, they are willing to make arrangements given the appropriate program and willing employees.

Thirty-eight (76%) of the fifty organizations which indicated some form of tuition aid policy have written requirements regarding the number of courses an employee may take in a given time period. Of these, seventeen (45%) place no maximum on the number of courses taken in a given year. The remainder set limits of from one course to ten. In some cases, union contracts dictate the number of courses available, while in others, courses are available up to a point when the maximum dollars allocated in the budget are spent.

When asked about the organization's policy concerning courses taken for academic credit versus noncredit courses, only seven organizations indicated any distinction between the two. Six of the seven allow credit courses only,

while the other allows noncredit courses only. Of the six allowing credit courses only, one would allow graduate credit courses only. The vast majority of organizations made no distinction between credit or noncredit courses.

There were even fewer organizations with policies regarding degree programs versus taking individual courses with no degree objective in mind. Only three rganizations had a set policy in this area of which two required a degree objective, and one required no degree objective. Again, the vast majority made little or no distinction between degree or nondegree course objectives.

Organizations were asked to state their policy regarding educational benefits for the spouse and/or children of employees. Only two organizations provide any sort of benefit to the employee's family. Of these one is in the form of an educational loan program, while the other is an informal educational summer program for children of employees. The almost complete lack of organizations providing educational benefits for the families of employees indicates that this kind of educational incentive is virtually nonexistent among New Hampshire organizations.

G. Educational Budgets

Employers were asked to divide their total educational budget among four employee groups. These groups were:

1. Administrators, proprietors, managers, and supervisors.
2. Professionals and technical specialists (i.e., engineers, scientists, technicians, accountants, sales staff, agents, social workers, etc.)
3. Clerical (i.e., typists, stenographers, secretaries)
4. Craft operatives, all others (include machine operators, production personnel, mechanics, skilled and unskilled labor).

Only ten (15%) of the sixty-eight organizations interviewed had formal educational budgets. Their distribution among occupational types varied widely. However, "Clerical," with an average of 18.5% of the educational budget, received slightly less than the other employee groups. "Professional and technical specialists" maintained the highest average, with 30.5% of the educational budget. "Craft operatives and all others" and "administrators" followed with 27.5% and 23.5% of the educational budget respectively.

H. Education Counseling

All of the 68 organizations interviewed were asked if they provide educational counseling for their employees. Twenty-nine percent (20) of the organizations indicated that they provide educational counseling. However, half of these organizations indicated that their counseling is relatively

informal, with no specific specially trained staff member assigned to the job.

Thirteen organizations indicated that they see a need for educational counseling services. These organizations were asked to describe what kinds of counseling would be most useful. "Counseling in long-range career planning for employees" is the most frequently suggested counseling service. Other suggestions include: assistance in course selection, aid in understanding educational standards and requirements, short-range career planning, program design, and employee motivation.

PART II

PROGRAM STRUCTURE - CONTENT AND DELIVERY

SECTION II-A-1

PROGRAM STRUCTURE AND DELIVERY

Many adults are interested in continuing their education, and their employers are often willing to support them in that endeavor. However, the characteristics of traditional program offerings such as the time and place offered, entrance requirements, location and course content frequently interfere with the employees' work schedules or do not appropriately match career training needs. The purpose of this section is to analyze the needs of New Hampshire organizations in terms of structure and delivery systems in order to find better ways to tailor our educational resources to fit the need.

INTEREST IN CUSTOM-MADE COURSES

In order to find out whether employers would be interested in specially designed courses that would be tailor-made to fit their organizations' special needs, the first mail survey to over 16,000 New Hampshire organizations included the following question:

> "Suppose we could arrange a completely independent custom-made course for your and/or your employees. Course content, time, requirements, and location would be designed by you and a team of professionals who work in your field of study. How interested would you be in such a course?"

Respondents to this question were as follows:

TABLE 21

INTEREST LEVEL	%	NUMBER OF RESPONDENTS
Very interested	34.9	658
Somewhat interested	41.2	775
Not interested at all	22.6	425
Response missing	1.3	25

New Hampshire employers do appear to be very interested in custom-made courses for their employees--with over 76% of the total respondents indicating that they are either "very interested" or "somewhat interested." Only 22.6% indicated no interest at all in such a program.

BY OWNERSHIP:

The following table breaks the respondents down by ownership and lists them in order of interest.

TABLE 22

RANK	OWNERSHIP	% VERY INTERESTED
1	Public-Local	56.7
2	Other	41.7
3	Private-Nonprofit	35.1
4	Private-Profit	34.9
5	Public-Federal	33.3
6	Public-State	20.7

Public-Local organizations appear to lead the list with 56.7% of their group indicating that they were "very interested." Private Nonprofit, Private Profit, and Public-Federal organizations are clustered at approximately 34% "very interested." Public State appears to fall out at 20%, however; there were only five respondents in this group with one answering "very interested," three answering "somewhat interested," one missing, and zero responding "not interested."

BY ORGANIZATIONAL TYPE:

The following table breaks the respondents to "Interest in Custom-made course" down by organizational type:

One out of every two "Governmental" organizations indicated that they are very interested in custom made programs and these organizations rank first in interest among the other organizational types. "Transportation, Communication, Utilities" and "Contract Construction" follow with 40.6% and 40.9% of their numbers very interested in custom-made courses

TABLE 23
INTEREST IN CUSTOM-MADE COURSE
- BY MAJOR STANDARD INDUSTRIAL CLASSIFICATIONS

SIC Group	Count Row %	Very Interested	Somewhat Interested	Not Interested	Row Total
Agri, Forest Fish	1	6 22.2	13 48.1	8 29.6	27 1.5
Contrct. Constr	3	81 40.9	83 41.9	34 17.2	198 10.7
Manufac	4	79 30.5	118 45.6	62 23.9	259 13.9
Trans, Com, Util	5	26 40.6	28 43.8	10 15.6	64 3.4
Whol. Trade	6	29 21.6	61 45.5	44 32.8	134 7.2
Retail Trade	7	220 38.3	222 38.6	133 23.1	575 30.9
Fin., Ins., RE.	8	48 30.2	72 45.3	39 24.5	159 8.6
Services	9	159 37.7	172 40.8	91 21.6	422 22.7
Governmental	10	10 50.0	6 30.0	4 20.0	20 1.1
Column Total		658 35.4	775 41.7	425 22.9	1858 100.0

Note: 25 blank responses not included

respectively. Agriculture, Forestry, and Fishing" organizations appear to be the least interested in custom-made courses with 29.6% of their numbers indicating that they are not interested.

BY EMPLOYEE SIZE

The table on the next page breaks down respondents by employee size group.

By examining the responses in the "Very Interested" column, we see that the frequencies remain relatively unchanged throughout the employee size

TABLE 24
INTEREST IN CUSTOM-MADE COURSE
- BY EMPLOYEE SIZE GROUP

Size Group	Count Row %	Very Interested	Somewhat Interested	Not Interested	Row Total
1-4	1	208	227	181	616
		33.8	36.9	29.4	33.9
5-9	2	180	196	94	470
		38.3	41.7	20.0	25.8
10-14	3	68	84	35	187
		36.4	44.9	18.7	10.3
15-19	4	35	46	29	110
		31.8	41.8	26.4	6.0
20-49	5	71	94	41	206
		34.5	45.6	19.9	11.3
50-99	6	28	38	18	84
		33.3	45.2	21.4	4.6
100-249	7	31	42	7	80
		38.8	52.5	8.8	4.4
250-499	8	11	20	4	35
		31.4	57.1	11.4	1.9
500-999	9	4	13	1	18
		22.2	72.2	5.6	1.0
1000 +	10	9	3	1	13
		69.2	23.1	7.7	0.7
	Column	645	763	411	1819
	Total	35.5	41.9	22.6	100.0

Note: 64 blank or unidentifiable responses not included

categories, with the exception of the very largest cell of 1,000 or more employees. However, when we examine the frequencies in the "Not Interested" column, we see that there is a definite inverse relationship between employee size and lack of interest, with the frequency of "not interested" responses increasing as employee size decreases. There is, therefore, a direct relationship between employee size and interest in custom-made courses--though positive interest is mixed between "Very Interested" and "Somewhat Interested."

In addition to the above measures, respondents were examined by county. No significant relationship between interest in custom-made courses and county was evident in this analysis. The deviation by county from the statewide aggregate was so slight that it can be fairly assumed that interest in custom-made courses is not affected by the geographic location of the organization within the state.

II-A-2

WILLINGNESS TO PARTICIPATE IN REGIONAL PROGRAMS

The vast majority of New Hampshire organizations are small in terms of numbers of employees. Seventy-eight percent have less than 10 employees and only 386 (2%) have 100 or more employees.

In many cases, the number of employees needing training in specific subject areas are too few to warrant an educational effort for those employees at one particular location alone. Employers were asked in the second long-form mail survey and in the on-site interviews if they would participate in a cooperative, regional training/educational program combining employees from several area organizations with similar educational needs. The following table illustrates their responses.

TABLE 25
WILLINGNESS TO PARTICIPATE IN REGIONAL COOPERATIVE TRAINING PROGRAMS
GROUP AGGREGATE

	Yes	Maybe	No	No Response	Total
In some cases, the number of employees needing training in specific subject areas are too few to warrant an educational effort for those employees alone. Would you participate in a cooperative regional training/ educational program combining employees from several area organizations with similar educational needs?	197	263	63	57	580
	34.0%	45.3%	10.9%	9.8%	100%
	79.3%				

Ten percent (sixty-three) of the respondents indicated that they would not be interested in a cooperative regional program. Four-hundred and sixty (79.3%) answered either "yes" or "maybe" to this question. Such an overwhelming interest in participation in this kind of delivery indicates that most employers would be willing to allow their employees to train with other persons.

BY ORGANIZATIONAL TYPE:

Table 26 breaks respondents down by standard industrial classification group.

For the most part, individual organizational groups follow the pattern set by the group aggregate. Only "Transportation, Communication, Utilities" and "Wholesale Trade" have a significantly larger percentate of "no" responses, with 25% and 17.6%, respectively.

SECTION II-A-3

PREFERRED COURSE STRUCTURE

The purpose of this section is to obtain an indication as to the preferences of New Hampshire employers in terms of course structure. We will concentrate on exploring the need for the following training options:

TABLE 26
WILLINGNESS TO COOPERATE IN REGIONAL TRAINING PROGRAMS
BY STANDARD INDUSTRIAL CLASSIFICATION GROUPS

	Yes	Maybe	No	No Response	Total
Agriculture, Forestry, Fisheries	0	0	0	0	0
Contract Construction	15 25.9%	27 46.6%	6 10.3%	10 17.2%	58
Manufacturing	35 29.4%	65 54.6%	12 10.1%	7 5.9%	119
Transportation, Communication, Utilities	6 37.5%	6 37.5%	4 25.0%	0 --	16
Wholesale Trade	8 23.5%	18 52.9%	6 17.6%	2 5.9%	34
Retail Trade	51 33.6%	75 49.3%	12 7.9%	14 9.2%	152
Financial, Insurance Real Estate	22 41.5%	22 41.5%	6 11.3%	3 5.7%	53
Services	54 39.7%	49 35.8%	17 12.4%	17 12.4%	137
Governmental	6 54.5%	1 9.1%	0 --	4 36.4%	11
Column Total	197 34.0%	263 45.3%	63 10.9%	57 9.8%	580 100%

1. Short-term training sessions on specific needs.

2. Special courses for upgrading and developing new skills.

3. Courses leading to a college degree.

The table presented below, gives an aggregate breakdown of the survey respondents who indicated a "high" or "moderate" need for these three training options.

TABLE 27
RESPONDENTS WHO INDICATED "HIGH OR MODERATE" NEED FOR SPECIFIED TRAINING OPTIONS

COUNT/% OF 1883 RESPONDENTS	PROFESSIONAL TECH. MGMT.	CLERICAL	CRAFT OPERATIVES ALL OTHERS	AGGREGATE NEED BY ALL EMPLOYEE TYPES
Short Term Training Sessions On Specific Needs	973 52%	591 31%	749 40%	41%
Special Courses for Upgrading And Developing New Skills	849 45%	492 26%	651 35%	35%
Courses Leading To a College Degree	247 13%	89 5%	85 5%	7%
Aggregate Need For All Training Options	36.7%	20.6%	26.7%	

The column marked "Aggregate Need By All Employee Types" indicates that 41% of the respondents prefer short-term training sessions on specific needs with 35% indicating a preference for special courses for upgrading and developing new skills. Only 7% of the aggregate group indicated a "high" or "moderate" need for courses leading to a college degree.

BY ORGANIZATIONAL TYPE:

The table on the next page illustrates the preferences of those respondents who indicated a "high" or "moderate" need for the specified training options by standard industrial classification group.

TABLE 28
RESPONDENTS WHO INDICATED A "HIGH" OR "MODERATE" NEED FOR SPECIFIED TRAINING OPTIONS -- BY STANDARD INDUSTRIAL CLASSIFICATION GROUP

(Number of Responses - % of Possible Responses)

	SHORT-TERM TRAINING	SPECIAL COURSES	COLLEGE DEGREE COURSE	AGGREGATE	TOTAL NUMBER OF RESPONDENTS
Agriculture, Forestry, Fish	27 32%	26 31%	6 7%	59 23%	28
Contract Construction	285 47%	248 41%	48 8%	581 32%	202
Manufacturing	346 44%	310 40%	77 10%	733 32%	260
Transportation, Communication, Utilities	105 55%	96 50%	18 9%	219 38%	64
Wholesale Trade	142 35%	107 26%	27 7%	276 23%	135
Retail Trade	669 38%	546 31%	115 7%	1330 25%	581
Financial, Insurance Real Estate	190 39%	176 36%	47 10%	413 28%	163
Services	517 40%	453 35%	80 6%	1050 27%	430
Governmental	32 53%	30 50%	3 5%	65 36%	20
					1883

This table requires some explanation. The numbers in each cell indicate the total number of "high" or "moderate" responses from the organizations within a particular industrial classification group for a particular training option. The numbers in the right-hand column indicate the total number of responses within each standard industrial classification group. The original survey question asked employers to indicate their degree of need for the three training options for each of three employee classifications. However, in the above table, employee classification groups were combined, therefore, each

respondent could have indicated a "high" or "moderate" need three times for each training option (once for each of the three employee classifications). The percentages indicated in each cell illustrate the percent of total possible multiple responses each cell received. For example, if one looks at the cell in row one, column one, the "short-term training" in the "Agricultural, Forestry and Fishery" group, we see that there were twenty-seven "high" or "moderate" responses in this cell. There were twenty-eight respondents in this SIC group. Each respondent could have given from 0 to 3 responses (one for each occupational group), therefore, this cell could have received eighty-four total responses. Twenty-seven were received, which account for 32% of the total possible. This method allows us to compare the level of preference for specified training options between SIC groups regardless of the size of the sample population within each group.

It is immediately apparent that "Short-Term Training Sessions on Specific Needs" is preferred over the other options in every SIC group. In many cases, "Special Courses for Upgrading and Developing New Skills" received almost as much interest as short-term training. In all cases, "Courses Leading to a College Degree" were preferred by employers far less often than the other two.

"Transportation, Communication, and Utility" organizations and "Governmental" organizations are the two SIC groups which lead the group aggregate in interest in the combined training options. "Agriculture, Forestry, and Fisheries," together with "Wholesale Trade," show the least interest in comparison with the other groups. However, 23% of these organizations indicated a "high" or "moderate" need for one or more of the training options.

II-B

PROGRAM CONTENT

Organizations that responded to the first mail survey and other selected organizations received a second, more detailed survey by mail or, in some cases, an on-site interview. The number of organizations reached in this manner. was 2,467. Of these, 585 completed the more detailed questionnaire.

Employers were asked to respond to several questions designed to determine the continuing education/skill training areas that would be of greatest benefit to the maximum number of organizations in the state. Employers were asked to indicate specific skill training areas and specific academic programs which would be of interest to their organization. Lists of skill training areas and academic programs were provided for selection and space was provided for employers to add additional programs not included in the selection list.

Sixty-eight organizations received on-site interviews. These organizations were asked to provide detailed information concerning suggested training/educational programs that they might like to run.

II-B-1

PREFERRED SKILL TRAINING AREAS

New Hampshire employers were asked to circle the letter of those skill training areas where a skill development program might be particularly beneficial to their employees. They were also asked to approximate, if possible, the number of employees they might encourage to enroll in such a program. The following table illustrates the responses of the 585 organizations that completed the survey.

TABLE 29

PREFERRED SKILL DEVELOPMENT AREAS

	Skills	Number of Responses	% of Total Responses	Number Encouraged To Enroll
A.	Machine or Manual	181	9.3%	1129
B.	Athletic Physical Coordination	14	.7%	63
C.	Detail/follow-through	144	7.4%	629
D.	Numerical/Financial/Accounting	224	11.5%	532
E.	Influencing/Persuading	152	7.8%	712
F.	Performing/Demonstrating	85	4.3%	310
G.	Leadership	253	12.9%	1495
H.	Developing/Planning/Organizing/Supervising	279	14.3%	1429
I.	Language/Reading/Writing/Speaking/Communication	127	6.5%	824
J.	Instructing/Guiding/Educational	88	4.5%	1050
K.	Serving/Helping/Cooperating/Human Relations	132	6.7%	1437
L.	Imaginative/Innovating	75	3.8%	175
M.	Artistic	31	1.6%	162
N.	Observational/Learning	53	2.7%	57
O.	Research/Analyzing/Evaluating	94	4.8%	382
P.	Other(s) (Specify)	24	1.2%	135
	Total	1956	100.0%	10,521

"Developing/Planning/Organizing/Supervising Skills" received the highest frequency of interest receiving 14.3% of the 1,956 responses. "Leadership Skills" and "Numerical/Financial/Accounting Skills" were also frequently circled, and received 14.3% and 11.5% of the total responses respectively. Together, these three skill development areas received 38.7% of the circled responses.

The number of employees who may be encouraged to enroll may be another indication of need. In terms of potential number of employees that might be encouraged to enroll, we see that "Leadership Skills" and "Developing/Planning/Organizing/Supervising Skills" are the most attractive. "Serving/Helping/Cooperating/Human Relations Skills," "Machine or Manual Skills," and "Instructing/Guiding/Educational Skills" also may have potential for enrolling a significant number of employees.

BY ORGANIZATIONAL TYPE:

In order to determine if the preferred skill development areas of individual organizations differ from the statewide aggregate, respondents were

analyzed by standard industrial classification group. In general, the preferred skill development areas of the ten organizational groups closely resemble those of the statewide aggregate. The following exceptions were noted: "Machine or Manual Skills" became the skill development area of greatest interest to the "Contract Construction" and "Manufacturing" organizational groups. "Serving/Helping/Cooperating/Human Relation Skills" rose to the second most preferred skill development area for the "Services" organizations, with "Developing/Planning/Organizing/Supervising Skills" remaining the most preferred as in the case of the group aggregate.

II-B-2

PREFERRED ACADEMIC SUBJECT AREAS

Survey recipients were asked to select from a list of academic programs those subject areas that they would support for the continuing education of their employees. Respondents were asked to assume that any area chosen would be "fine tuned" to relate specifically to the level of advancement and specific needs of the employees and their organization.

There were seventy-two academic program areas to choose from. Listed on the following tables are the ten most frequent and ten least frequently chosen program areas. (A complete list can be found in the appendix.)

TABLE 30
TEN MOST FREQUENTLY CHOSEN ACADEMIC PROGRAM AREAS

Rank Order	Number of Responses	% of Total	Academic Program
1	214	7.9	Business Management and Administration
2	192	7.1	Personnel Management
3	184	6.8	Accounting
4	143	5.3	Business Economics
5	122	4.5	Secretarial Technologies
6	112	4.1	Marketing and Purchasing
7	99	3.6	Advertising
8	81	3.0	Labor and Industrial Relations
9	80	2.9	Computer Programming
10	70	2.6	Communications

TABLE 31

TEN LEAST FREQUENTLY CHOSEN ACADEMIC PROGRAM AREAS

Rank Order	Number of Responses	% of Total	Academic Program
1	8	.3	Elementary Education, Advanced
2	7	.3	Radiologic Technologies
3	7	.3	Medical Records
4	7	.3	Civil Engineering Technologies
5	7	.3	Ed. Statistics, Research., Measure, etc.
6	7	.3	Student Personnel
7	6	.2	Institutional Management
8	6	.2	Secondary Education, Advanced
9	0	--	Aeronautical and Aviation Technologies
10	0	--	Nuclear Technologies

Seven of the ten most frequently chosen academic programs fall in the Business and Management area. Five of the ten least chosen academic areas fall in the education field. However, this is a statewide aggregate of all organizational types. The most frequently chosen academic programs will, therefore, reflect the preferences of those organizational groups with the largest number of members. Business related organizations far outnumber Human Service, Health and Education operations and the popularity of Business and Management related programs reflects this distribution. This type of analysis can, however, assist planners in determining which academic program offerings might become most effective in terms of overall need.

BY ORGANIZATIONAL TYPE:

Responses were sorted by organizational type and most frequently chosen academic program. The following table lists the three most popular academic programs for each organizational type.

Accounting and Personnel Management occurred among the three most frequently chosen academic programs in seven of the eight organizational groups. Business Management and Administration occurred in five of the eight groups.

TABLE 32
THREE MOST FREQUENTLY CHOSEN ACADEMIC PROGRAM AREAS BY ORGANIZATIONAL TYPE

Organizational Type	Rank Order	Academic Program	Number of Responses
Contract Constr.	1	Construction and building	20
	2	Computer Operation	10
	3	Personnel Management	9
Manufacturing	1	Personnel Management	39
	2	Business Management & Admin.	35
	3	Accounting	32
Transportation Communication Utilities	1	Accounting	11
	2	Personnel Management	11
	3	Business Management & Admin.	10
Wholesale Trade	1	Accounting	16
	2	Business Management & Admin.	15
	3	Personnel Management	12
Retail Trade	1	Business Management & Admin.	58
	2	Advertising	45
	3	Accounting	40
Finance, Insurance, Real Estate	1	Accounting	26
	2	Banking & Finance	24
	3	Personnel Management	23
Services	1	Business Management & Admin.	52
	2	Accounting	41
	3	Personnel Management	42
Governmental	1	Accounting	8
	2	Public Administration	6
	3	Personnel Management	5
	3	Secretarial Technologies	5

While Construction and Building was the most frequently chosen academic program in the Contract Construction group, it is interesting to note that the seemingly unrelated field of Computer Operator Training became the second most frequently chosen subject area.

The Manufacturing, Transportation, Communication and Utilities group, Wholesale Trade group, and Services group chose combinations of the same three academic program areas. They are Accounting, Personnel Management, and Business Management and Administration.

Retail Trade organizations made Advertising a popular choice. Finance, Insurance, and Real Estate organizations chose Banking and Finance. Governmental organizations chose like subject materials in "Public Administration."

II-B-3

ADDITIONAL PROGRAM AREAS SUGGESTED BY SURVEY RESPONDENTS

Employers were asked to suggest additional academic programs that would be beneficial to their employees but did not appear in the selection list provided. For each educational program suggested, employers were also asked to include the number of their employees that they estimated would be trained if such a program were offered. Over one-hundred and fifty programs were suggested. The educational programs suggested are listed below if the number estimated to be trained is ten or more.

TABLE 33
EDUCATIONAL PROGRAMS SUGGESTED BY RESPONDENTS, NUMBER TO BE TRAINED, AND STANDARD INDUSTRIAL CLASSIFICATION GROUP

EDUCATIONAL PROGRAM	NUMBER TO BE TRAINED	SIC GROUP
Emergency Medical Training	75-100	Services
Plant Safety (Workmen's Comp. Laws)	75	Manufacturing
Medical Technician Training	60	Services
Office Procedures	40-50	Services
Cashier/Clerk Training	48	Retail Trade
Leadership Training	40	Services
Specific Retail Food Industry Courses	30	Retail Trade
Basic Gauging	25	Manufacturing
Supervisory and Management Skills	25	Services
Banking Skills	20-25	Services
Public Speaking	24	Services
Business Administration for Hospitals	20	Services
Advanced Travel Agent Course	18	Finance/Insurance/R. E.
General Management Operators	15	Services
Safety Program - Highway Dept.Truck Drs.	15	Governmental
Safety Program - Waste Water Dept.	15	Governmental
Retail Sales	15	Retail Trade
Court Systems and Usage	13	Services
Papermaking	12	Manufacturing
Public Speaking	10	Services
Sign Language	10	Services
Food Handling	10	Retail Trade

II-B-4

SELF-DESIGNED PROGRAMS

Sixty-eight organizations that participated in on-site interviews by members of the MBA Survey Teams were asked to complete a detailed section

on the Training/Educational Programs that their organization would like to run. Fifteen programs were designed by survey respondents. Brief outlines of those programs are described below. It should be noted that the following program designs are not based on an objective appraisal of a sizable sampling of data but are the subjective conclusions of particular individuals that may or may not pertain to the needs of organizations other than their own.

Medical Technician Program

This program would cover all required science and medical courses needed to attain an MLT degree. The course would be offered three hours a week continuously and would allow employees to obtain a degree in five years--with employees attending classes on-site in the evening. The respondent estimates that thirty to forty employees would be involved in the program.

Computer Training

A new CRT system has been installed in this respondent's hospital, and the employer would like to teach employees how to use the system and not be afraid to do so. Lab employees and clerical personnel would be involved in courses that would be offered on-site three hours per week, after working hours, from four to eight weeks. The respondent estimates that sixty employees would be involved in the project.

Dealing With New Medical Procedures and Equipment

The purpose of this course would be to update employees on new procedures in the technical areas of hemotology, microbiology, immunology, blood banking, chemistry, and other medical science areas. Medical lab technicians would be involved in groups of two or three for approximately one day per week during working hours. The respondent estimates that approximately thirty employees would be involved.

Specialty Training for Nurses

The objective of this program would be to bridge the gap between the general training employees received when they were students and the special expertise needed in the areas of psychiatry, operating room, and intensive care techniques. Nurses would be involved for five to ten hours per week for one to four weeks during working hours. The respondent estimates that forty-five employees could be involved in such a program.

Crisis Intervention Training

Its purpose would be to train people to respond and deal with clients and situations that require "instinct" reactions. Social workers and Head Start employees would be involved for time periods that vary with the educational background of the employee. Time would be made available during working hours for training, and the respondent estimates that twenty employees would be involved "if there were no charge to the employees."

Government - Waste Water Certification

According to the respondent, the State of New Hampshire does not offer much training in this area, yet some positions require employees to pass a state certification examination. The subject area covered would be Water Pollution Control. Approximately ten employees would attend courses during working hours for approximately eight hours per week for one week.

Union Negotiations

This program would involve training labor and industrial relations personnel to handle contract dispute problems. Approximately ten administrators would be involved for three hours per week for four to eight weeks. Time would be made available during working hours.

Courses in Managerial Training for Urban Managers

In this case the respondents suggested six topics from publications and training materials provided by the International City Management Association (ICMA). The topics include: Effective Supervisory Practices, Urban Public Works Administration, Public Relations in Local Government, Managing Municipal Leisure Services, Policy Analysis in Local Government, and Municipal Fire Administration. Approximately twenty-five mid and lower-level administrators would be involved for approximately two hours per week for fifteen weeks (variable). Facilities would be available on-site during working hours.

Communication Skills for Supervisors

Two separate respondents suggested a program in this area, the purpose of which would be to improve writing, planning, organizational development, and human resource management skills. It would involve twenty-five employees in one organization and twelve in the other for approximately two hours per week and a seminar structure would be preferred. Time would be made available during working hours.

Selling Techniques and Store Security

The goal of the program would be to improve sales and reduce theft by teaching employees sales skills and educating employees about legal issues and rights. Approximately eighty-five employees would be involved on a rotating eight-hour-per-week schedule, once per month, on-site, and during working hours.

Basic Economics

This program would be designed to give employees an idea of what it takes to run a business, the costs involved, and the work required to

maintain it. The basics of supply and demand, costs, and the role of profit in a capitalistic society would be included. Fifty employees would be involved from all occupational classifications. The program would be offered on-site to a "captive audience" after working hours.

General Business Skills

This program would be available to all employees (but primarily to higher management). It would be offered on-site (if not too many employees were involved) and time during working hours would be available.

First Aid Program

A program that would qualify and requalify at least two workers per shift for CPR and General First Aid. Approximately ten employees would be involved for twenty to twenty-four hours on site during working hours.

Training Program in Extrusion and Injection Molding Theory

This program's objective would be to promote better understanding of plastics and machinery, covering electrical and hydraulic operations, but not too technical. The respondent would like the course taught on-site and allow use of the organization's machinery. Six employees at a time would be involved, several times a year, for one evening per week, for twelve weeks, during evening working hours (twenty-four work shift).

Printing Trade Skills

The program would cover arithmetic, press operations, cold glue and hot glue processes. Approximately twenty-five press and collator helpers would be involved at another location but during working hours.

II-B-5

LONG-RANGE NEEDS

All recipients of the long-form questionnaire, (both by mail and on-site interviews), were asked to comment on any long-range educational needs

which their organization may have based on a need to accommodate for changes in knowledge or skill.

Training in computer science and technology occurred repeatedly as a long-range need. Technical knowledge in banking and law were also mentioned frequently. Other long-range needs include video tape production techniques, digital electronic service skills, plastics technology, economic and financial forecasting, marketing/merchandising, ceramic engineering, and the ever-present basic skills in reading comprehension and writing.

II-B-6

SPECIAL NEEDS OF NEW HAMPSHIRE PRIMARY AND SECONDARY SCHOOLS

While the purpose of this study is to define the general continuing education needs of New Hampshire organizations on a statewide basis, we did not want to ignore the special needs of those organizations that do not necessarily conform to the purpose, structure and goals of the majority of New Hampshire business entities. Working on the assumption that educational organizations may have individual needs that would not surface in a broad statewide study, seven schools (below the postsecondary level) were chosen to receive on-site interviews conducted by a person familiar with educational operations. The following observations were noted.

In general there exists a high degree of need for staff development training in both public and private educational institutions. Public institutions have money available in their budget for continuing education while private institutions have little or no money available.

Middle school administrators feel that their organizations and clientele have special needs apart from the needs experienced by primary and secondary educational organizations. One administrator feels that New

Hampshire teacher training institutions do not treat the middle school as a separate entity with special needs but tend to concentrate on elementary and high school education only.

Pre-schools appear to be isolated from the educational community. In some cases these schools cooperate with local public schools for training. However, administrators feel that pre-schools would benefit greatly from increased communication and cooperation through regional workshops, etc.

Basic skill areas preferred include those that would bring about an infusion of new ideas and also those that would deal with developing the writing skills of non-English teachers. Recent legal developments concerning educating the handicapped have created significant need for training teachers to develop the skills needed to deal with handicapped students.

Other skill areas preferred by school administrators include influencing/persuading skills, leadership skills, developing/planning/organizing skills, basic communication skills and serving/helping/cooperating/human relations skills.

Preferred academic subject areas include personnel management, public administration, food handling and serving, advanced elementary and secondary education training, special education/learning disabilities, and educational statistics, research and measurement.

One school administrator interviewed expressed a preference for receiving educational services from a business school rather than a teacher training institution when the subject areas to be taught are in the public/educational administration fields.

II-B-7

MATCH BETWEEN ACADEMIC PROGRAM NEEDS AND CURRENT AVAILABLE RESOURCES

In Section II-B-2 we discussed the preferred academic program areas chosen most frequently by New Hampshire employers. In that section we presented the ten most frequently chosen academic program areas. (A complete list of academic program areas and the frequency of their choice by survey respondents can be found in the appendix.) In order to determine if the resources are currently available to meet these program area needs, we cross-referenced this list of preferred program areas with the New Hampshire data base, "College Program Report AY 78-79" of the New Hampshire Postsecondary Education Commission. The ten most preferred academic program areas are listed below. Together with the number of organizations that would support the subject areas for the continuing education of their employees and the number of degree programs currently offered within the state with a major available in these program areas.

TABLE 34
TEN MOST FREQUENTLY CHOSEN ACADEMIC PROGRAM AREAS
AND NUMBER OF DEGREE PROGRAMS AVAILABLE

Program Area	Number of Responses	Number of Degree Programs Available
Business Management & Admin.	214	16
Personnel Management	192	0
Accounting	184	7
Business Economics	143	7
Secretarial Technologies	122	42
Marketing and Purchasing	112	7
Advertising	99	0
Labor and Industrial Relations	81	1
Computer Programming	80	3
Communications	70	1

There are no degree programs majoring in personnel management or advertising in New Hampshire. There is only one degree program each in Labor and Industrial Relations and Communciations. Of course, this is a very rough comparison. It

is likely that many New Hampshire postsecondary education organizations offer individual courses dealing with these subject areas. However, as far as can be accurately determined at this time, the number of schools that offer the number of courses required to make up a concentration in these program areas are very few or non-existent.

A quick glance at the appendix listing all the academic program areas and their frequency of choice will reveal that the column marked "Number of Current Degree Programs" allows one to make a rough determination between the popularity of a given program area and the availability of degree program majors in that area. For the most part, there is at least one degree program major in each of the listed academic programs. However, in those cases where there exists only one degree offering in a given field, it may be highly likely that the geographic location or time of day of the program offering conflicts with the individual needs of the organizations that require the training.

There are currently approximately forty-two programs offered in secretarial technologies, ranging from bachelors degree to diploma programs. One hundred and twenty-two of the survey respondents indicated that they would support a secretarial training program for their employees. In other sections of this report it is indicated that poorly trained clerical staff is one of the most frequent problems indicated by survey respondents. In this case, where there is apparently a high degree of need and yet a large number of programs available to seemingly meet that need, it appears that further study is needed to ascertain why it is that the available resources are not being utilized to match the apparent need. Secretarial Technologies may be a classic case where lack of communication or inconvenient time and location of program offerings are severely limiting the utilization of the programs. It

may also be that the secretarial programs offered are inflexible in their traditional design where individual organizations may need programs fine-tuned to relate specifically to the level of advancement and special needs of their organization.

PART III

EMPLOYER PERCEPTIONS OF EDUCATIONAL SERVICES

SECTION III-A

INFORMATION DISSEMINATION

Effective communication between the educational resource provider and the potential user is essential if the courses and programs developed for the benefit of New Hampshire organizations are to be fully utilized. In order to ascertain the overall effectiveness of the current efforts of the state's colleges and universities to make New Hampshire organizations aware of the educational training and skill development services they currently offer, survey recipients were asked to respond to the following question: "How well informed do you feel about the educational training and skill development services currently offered in New Hampshire?" Response choices were "very well," "adequately," "poorly," and "not informed at all."

BY OWNERSHIP AND STATEWIDE AGGREGATE

The following table gives both the total aggregate response tc this question and breaks respondents down by ownership.

"How well informed do you feel about the educational training and skill development services currently offered in New Hampshire?" - by ownership

TABLE 35

COUNT ROW %	VERY WELL	ADEQUATELY	POORLY	NOT INFORMED	ROW TOTAL
Private Profit	82	617	708	231	1,638
	5.0%	37.7%	43.2%	14.1%	90.6%
Private Nonprofit	8	32	45	8	93
	8.6%	34.4%	48.4%	8.6%	5.1%
Public Federal	1	5	0	0	6
	16.7%	83.3%	0.0%	0.0%	0.3%
Public State	2	2	1	0	5
	40.0%	40.0%	20.0%	0.0%	0.3%
Public Local	5	11	10	4	30
	16.7%	36.7%	33.3%	13.3%	1.7%
Other	2	14	15	5	36
	5.6%	38.9%	41.7%	13.9%	2.0%
Column Total	100	681	779	248	1,808
	5.5%	37.7%	43.1%	13.7%	100.0%

Note: Fifty-two unidentified responses not included.
Twenty-three blank responses not included.

Only 5.5% of the total respondents indicated that they were "very well informed" about the educational services currently offered. If one combines the "poorly" and "not informed" columns, it can be determined that almost 57% of New Hampshire organizations (projected at approximately 10,885) are either poorly, or not informed at all about current educational offerings.

Public/Federal and Public/State organizations appear to have the highest frequency of well informed members in their organizational group. Of the Public/Local organizations, 46.6% indicated that they were "poorly" or "not informed at all," along with 57% of the Private Nonprofit and 57.3% of the Private Profit making organizations.

BY ORGANIZATIONAL TYPE:

There appears to be a significant problem in communicating information concerning current program offerings to New Hampshire organizations. The table on the following page will try to provide some insight into which kinds of industries seem to be the least informed, and how many of these poorly informed industries there are in the state.

The rank order listed in this table was determined by grouping the "poorly" and "not informed at all" responses. The organizational group with the highest frequency of these combined responses is ranked first (1).

Contract Construction appears to lead the field in lack of information, with 65% of their numbers being "poorly" or "not informed at all" about educational offerings. If one moves along the row marked "Contract, Construction" to the last two cells, one sees that there are 2,721 Contract, Construction organizations in New Hampshire, of which we can project that 1,769 are "poorly" or "not informed at all."

Retail Trade is ranked second in lack of information with 60% of their numbers falling in the "poorly" or "not informed at all" categories. As there

TABLE 36 --

PROJECTED NUMBER OF NEW HAMPSHIRE ORGANIZATIONS POORLY OR NOT INFORMED AT ALL ABOUT EDUCATIONAL TRAINING CURRENTLY OFFERED IN STATE - BY STANDARD INDUSTRIAL CLASSIFICATION

"POORLY OR NOT INFORMED" RANK		Count / Row % (1) VERY WELL	(2) ADEQUATELY	(3) POORLY	(4) NOT INFORMED	(5) ROW TOTAL	(6) TOTAL ORGANIZATIONS IN N.H.	PROJECTED NO. OF ORGS. POORLY OR NOT INFORMED AT ALL (3+4)x6
9	Agriculture, Forest, Fish	1 3.7%	14 51.9%	9 33.3%	3 11.1%	27 1.5%	213	95
1	Contract Construction	6 3.0%	63 32.0%	101 51.3%	27 13.7%	197 10.7%	2721	1769
7	Manufacturers	19 7.5%	105 41.2%	103 40.4%	28 11.0%	255 13.9%	1664	855
5	Transportation, Communication, Utilities	0 0.0%	28 43.8%	29 45.3%	7 10.9%	64 3.5%	690	388
4	Wholesale Trade	8 6.0%	50 37.6%	57 42.9%	18 13.5%	133 7.2%	1199	676
2	Retail Trade	20 3.5%	204 36.0%	252 44.4%	91 16.0%	567 30.8%	5911	3570
8	Financial, Insurance, Real Estate	12 7.6%	76 48.4%	49 31.2%	20 12.7%	157 8.5%	1464	643
3	Services	33 7.9%	142 34.0%	188 45.0%	55 13.2%	418 22.7%	5500	3201
6	Governmental	1 5.0%	10 50.0%	7 35.0%	2 10.0%	20 1.1%	NA	--
	Column Total	100 5.4%	692 37.6%	795 43.3%	251 13.7%	1838 100.0%	19613	11179

NOTE: 45 blank responses not included.
Total column 6 includes 225 nonclassifiable establishments and 26 mining.

SOURCE: "1977 County Business Patterns", U. S. Department of Commerce.

are 5,911 of these organizations in New Hampshire, we can project that there are 3,570 which are "poorly" or not informed at all" about current educational training programs. This group, together with the "Services" group with a projected 3,201 uninformed members, make up the two largest organizational groups that are poorly informed about educational programs in the state.

BY EMPLOYEE SIZE:

The following table groups respondents by employee size.

TABLE 37
LEVEL OF AWARENESS CONCERNING EDUCATIONAL OFFERINGS - BY EMPLOYEE SIZE GROUP

NUMBER OF EMPLOYEES	COUNT ROW %	VERY WELL OR ADEQUATELY INFORMED	POORLY OR NOT INFORMED	ROW TOTAL
1-9		430 40.1%	643 59.9%	1073
10-19		119 40.2%	177 59.8%	296
20-49		95 46.3%	110 53.7%	205
50-99		46 56.8%	35 43.2%	81
100-499		65 56.5%	50 43.5%	115
500+		18 60.0%	12 40.0%	30

Note: Blank or unidentifiable responses not included.

It does appear that there is a very definite correlation between employee size and information dissenination. The previous table groups the "very well" and "adequately" responses in one column, and the "poorly" and "not informed at all" responses in the second. One can immediately observe that as employee size decreases, the percentage of "poorly" or "not informed" organizations

increases in a range from 40% to almost 60%. This characteristic may be caused in part by the increased likelihood, of the presence in larger organizations of a personnel officer whose job it is to be aware of educational training programs. It may also reflect the communication efforts of college and university continuing education staffs who place a higher priority on providing information to the larger organizations.

BY GEOGRAPHIC LOCATION:

What are the geographic characteristics of information dissemination in New Hampshire? The following map indicates the number of respondents, the combined percentage of those respondents who indicated that they were "poorly" or "not informed at all," and the projected number of organizations which would therefore be "poorly" or "not informed at all" about continuing education programs within the county.

As regards frequency of "poorly informed" organizations, Carroll County seems to top the list with 66.6% of organizations within that county "poorly" or "not informed at all." The Massachusetts border county of Rockingham follows with 61.7% of its organizations uninformed. With four counties closely tied with the lowest frequency rate of approximately 48% "poorly" or "not informed," there are no counties which can really be considered "adequately informed."

Of those counties with the largest projected number of inadequately informed organizations, Hillsborough County takes the lead with 3,143. Rockingham is second with 2,224, and Merrimack, third with 1,252 projected "poorly informed" organizations.

The three southern counties of Merrimack, Hillsborough, and Rockingham combined account for 61% of New Hampshire's projected 10,885 poorly informed

TABLE 38

Estimated number of organizations which are poorly or not informed at all about the educational training and skill development services currently offered in New Hampshire--by county.

LEGEND: (Projected No. Poorly or not Informed)

No. of Respondents

County

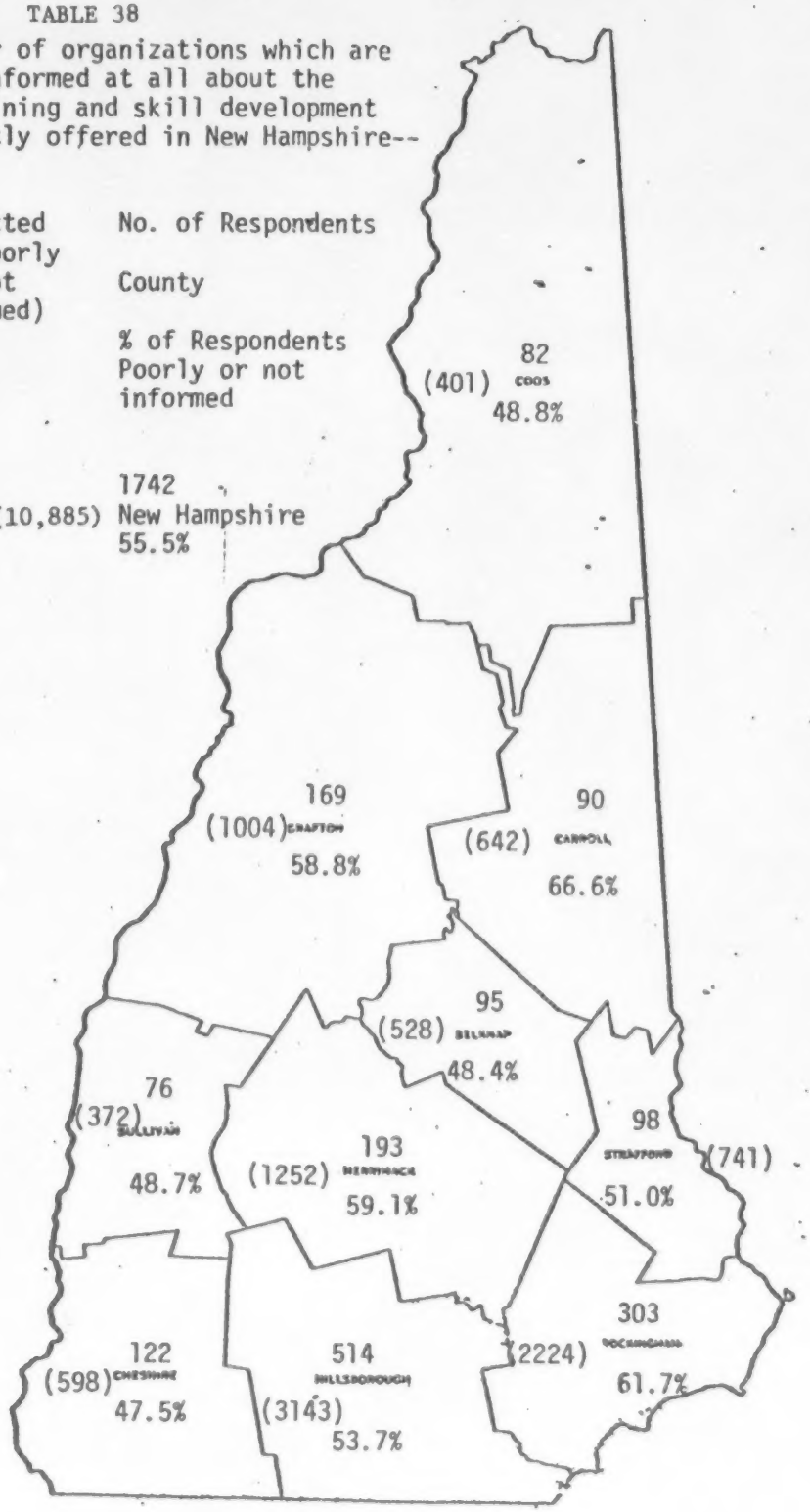
% of Respondents Poorly or not informed

STATEWIDE:

1742

(10,885) New Hampshire

55.5%



NOTE: 141 cases not identifiable by county not included.
Blank responses included.
Number of organizations projected from "1977 County Business Patterns." U. S. Department of Commerce Social and Economic Statistics Administration Bureau of The Census.

organizations. It would appear that mass media efforts would get the most effective initial return by concentrating on this three-county area first.

III-B

PERFORMANCE OF GRADUATES IN THE WORKFORCE

One objective of the Continuing Education Needs Analysis is to uncover any areas where employers may feel that postsecondary education is currently doing a poor job in preparing their employees. Nine-hundred and sixty-four employers were asked by mail survey or on-site interview to list specific skill training areas, educational programs, or occupational categories where their employees were poorly prepared by postsecondary education.

It should be noted that the following comments are not based on an objective appraisal of a sizable sampling of data but are the subjective conclusions of particular individuals that may or may not pertain to the experiences of organizations other than their own.

Of the eighty-three responses received, 24 percent (twenty) maintained the same theme, insufficient basic skills, i.e., reading writing, and arithmetic. It is evident that many employers were not limiting their comments to postsecondary education graduates, but were including their entire workforce (many of whom may not have progressed past the high school diploma). However, the frequency of complaints concerning basic skills preparation which occurred as responses to this and other questions in the survey indicates that this is a widely prevalent and perhaps costly problem facing New Hampshire organizations.

Comments regarding the poor preparation of secretaries and typists were quite common. In several cases employers complained that employees seem to lack the ability to fill out employment applications and do not know how to present themselves for a job.

In one case it was said that first year teachers have received little student teaching experience, are poorly prepared to deal with parents and diverse groups of students, and do not understand individualized instruction. They also lack teacher effectiveness training, and have poor curriculum development, planning,

and organizational skills dealing with all aspects of teaching.

One respondent related that nursing schools are not giving specialty training (i.e., operating room, psychiatric, intensive care, etc.). "Nurses are trained to be generalistic with no hands on experience," and the respondent mentioned "they tend to faint the first time they go into surgery."

Another respondent complained that administrators (particularly political science majors) who go into municipal work are poorly trained in realistic subject areas. "They are all theory with very little experience with local politics, and they have no accounting or interpersonal relationships skills."

These comments and others of like nature seem to indicate that there is a general problem in the transition from educational theory to the specific job environment. Employers seem to feel that college graduates are interested only in the glamorous side of the job, i.e., decision-making, financial analysis, purchasing, etc. and are not interested in the nitty-gritty, day-to-day activities involving how to make money or how to run a store. Real world experience appears to be lacking in the classroom.

One respondent commented that there are no cooperative education programs available which would give the employer the opportunity to work with education to combine the practical with the theoretical. He further maintained that there does not seem to be any working relationship between education and industry to develop the skills in school that industry needs.

Several comments were made that the liberal arts curriculum should include courses in general business subjects, explaining the role of cost, overhead, and profits as applied to the enterprise. One respondent from a health services organization wrote "Schools must work with industry to find out what should be taught. The University of New Hampshire Med-Tech Program is the only one that does this. Most schools have failed at long-range planning by not responding to the needs of industry."

APPENDIX A

ACADEMIC PROGRAM PREFERENCES OF NEW HAMPSHIRE EMPLOYERS AND NUMBER OF DEGREE PROGRAMS CURRENTLY AVAILABLE

ACADEMIC PROGRAM PREFERENCES OF NEW HAMPSHIRE EMPLOYERS AND NUMBER OF DEGREE PROGRAMS CURRENTLY AVAILABLE

Rank Order	Number of Responses	% of Total	Academic Program	Number of Degrees Available
1	214	7.9	Business management & admin.	15
2	192	7.1	Personnel management	0
3	184	6.8	Accounting	7
4	143	5.3	Business economics	7
5	122	4.5	Secretarial technologies	42
6	112	4.1	Marketing and purchasing	7
7	99	3.6	Advertising	0
8	81	3.0	Labor & industrial relations	1
9	80	2.9	Computer programming	3
10	70	2.6	Communications	1
11	69	2.5	Banking and finance	1
12	65	2.4	Electronics & machine technologies	4
13	63	2.3	Computer operator	3
14	61	2.2	Welding technologies	1
15	52	1.9	Systems analysis	3
16	44	1.6	Electromechanical technologies	0
17	41	1.5	Mechanical Engineering	4
18	40	1.5	Automotive technologies	7
19	39	1.4	Construction & building technologies	6
20	38	1.4	Machine technologies	3
21	36	1.3	Food handling and serving	0
22	34	1.3	Key punch operator	3
23	32	1.2	Real Estate	1
23	32	1.2	Key punch operator	3
24	31	1.1	Engineering	19
24	31	1.1	Psychology	14
24	31	1.1	Diesel technologies	1
25	30	1.1	Insurance	4
26	29	1.1	Operations research	0
27	27	1.0	Health services	1
28	26	1.0	Foods and nutrition	1
29	22	.8	International business	1
29	22	.8	Public administration	2
30	21	.8	Industrial technologies	6
31	20	.7	Printing technologies	0
31	20	.7	Community services, general	1
32	19	.7	Economics	11
33	18	.7	Hotel and restaurant management	2
33	18	.7	Data process. equip. maintenance	2
33	18	.7	Instrumentation technologies	0
34	16	.6	Institutional & cafeteria mgmt.	0
34	16	.6	Social work and helping services	2
34	16	.6	Architectural drafting	1
34	16	.6	Special education	3
35	15	.6	Architecture	1
35	15	.6	Agriculture	12

"Number of Responses" is the number of organizations that selected the particular academic program as one of the subject areas they would support for the continuing education of their employees. Organizations may have selected many academic programs. Therefore, the total number of responses exceeds the total number of respondents.

ACADEMIC PROGRAM PREFERENCES OF NEW HAMPSHIRE EMPLOYERS AND NUMBER OF DEGREE PROGRAMS CURRENTLY AVAILABLE

Rank Order	Number of Responses	% of Total	Academic Program	Number of Degrees Available
36	14	.5	Transportation & public utilities	3
36	14	.5	Home economics	5
36	14	.5	Engineering graphics	9
37	12	.4	Nursing	9
37	12	.4	Educational administration	4
37	12	.4	Industrial arts and voc. ed.	4
38	11	.4	Occupational therapy	1
38	11	.4	Psychiatric technologies	1
38	11	.4	Chemical technologies	2
38	11	.4	Textile technologies	0
39	10	.4	Political science and government	9
39	10	.4	Business and commerce education	9
40	9	.3	Law enforcement and corrections	1
40	9	.3	Sociology	12
40	9	.3	Physical therapy	1
41	8	.3	Elementary education, advanced	14
42	7	.3	Radiologic technologies	3
42	7	.3	Medical record	2
42	7	.3	Civil Eng. technologies	3
42	7	.3	Ed. statistics, rsch., measure, etc.	0
42	7	.3	Student personnel	4
43	6	.2	Institutional management	2
43	6	.2	Secondary education, advanced	4
44	0	--	Aeronautical and aviation technologies	16
44	0	--	Nuclear technologies	0
	2708			

APPENDIX B

OCCUPATIONAL CATEGORIES WHERE NEW HAMPSHIRE ORGANIZATIONS ARE HAVING DIFFICULTY FINDING EMPLOYEES

OCCUPATIONAL CATEGORIES WHERE NEW HAMPSHIRE ORGANIZATIONS ARE HAVING DIFFICULTY FINDING EMPLOYEES *

SIC GROUP

CONTRACT CONSTRUCTION

15-17

	# CURRENTLY EMPLOYED
Air Cond. Service Man	2
Carpenters	22
Commercial Roof Supervisor	5
Concrete Finishers	3
Concrete Form Carpenter	8
Concrete Formsetters & Laborers	4
Farm Employees	35
Finish & Rough Carpenter	2
Floor Mechanic	2
General Laborer	8
Heavy Equipment Operators	7
Journeyman Electrician	3
Licensed Electricians	2
Mason - Brick	2
Mason Tenders	2
Mechanical Engineer HVAC	2
Millwrights	4
Packers	20
Planning Asst.	2
Riggers	5
Sheet Metal Mechanic	8
Siding Appliers	4
Tiler	2
Welder	0
SUBTOTAL	147

MANUFACTURING

19-39

A/R Machinists	5
Automatic Screw Machine Set/up Operator	77
Board Sawyer	2
Chemical Engineer	8
Casting Department	5
Class I Machinist	1
Clerical	43
Controller/Bookkeeper	2
Crystal Cutters	3
Cutters/Mechanics	5
Data Entry Operators	4
Direct Mail Marketers	2

cont'd

* Based on comments of 276 survey recipients who indicated that there were specific occupational categories where they were having difficulty finding qualified employees.

MANUFACTURING (cont'd) 19-39	NUMBER CURRENTLY EMPLOYED
Draftsman	3
Drivers	45
Electrical Engineers	12
Electricians	15
Electro-mechanical Drafters	3
Electronic Repair Technicians	8
Electronic Technicians	14
Electronic Test Technicians	8
Engineering Technicians	10
Engineers	10
Estimating & Detailing Weldments	3
Exp. Collation Operators	0
Exp. Press Operators	0
First Line Supervisors	18
Forest Woodscrew	3
Formulators	3
Foundry Laborer	3
General Plant Laborers	8
Hardwood Lumber Grader	3
Industrial Electricians	2
Industrial Engineer	9
Jewelry Assemblers	9
Keypunch Operators	4
Knife Over Roll Coaters	5
Knitters	5
Lineman	2
Loom Technicians	8
Machine Operators	226
Machine Operator (Unskilled Production)	150
Machine Set-up Man	29
Machine Tool Operator	82
Machinists	57
Machinists/Toolmakers	6
Maintenance	11
Maintenance Personnel	12
Material Handlers	11
Mechanics	40
Millwrights	25
Mold Makers	8
Mold Tool Engineers	1
N.C. Machine Center Operator	34
Office Manager	0
Offset Prep. Person	3
Packaging Engineer	3
Papermakers	8
Pattern Maker	0
Plant Engineers	0

cont'd

MANUFACTURING (cont'd) 19-39		NUMBER CURRENTLY EMPLOYED
Plating Machine Oper.		4
Press Brake Operator		2
Press Brake Set-up Oper.		18
Printing Graphic Arts		10
Production Management		6
Production Personnel		94
Production Spray Painters		6
Production Welders Heliaric-MIG TIG		16
Punch Press Diemakers		3
Punch Press Set-up Oper.		10
Qualified Welders		5
Rubber Chemist		1
Sawmill Equip. Operators		15
Sawyer		3
Seamstress (High Quality)		8
Secretaries		41
Sewing Machine Operators		110
Shop Foreman		1
Silk Screen Printers		4
Skilled Machine Operators		123
Skilled Maint. Machinists		4
Stitchers		40
Stitching Machine Oper.		25
Structural Steel Detailing		3
Technician Elec.		50
Tool & Die Machinists		6
Tool & Die Makers		19
Trained Machinists		15
Weavers		32
Welders		60
Woodworker		8
Woodwork Machinist		1
	SUBTOTAL	1854

TRANS, COMM. UTIL 40-49		
Bus Drivers		20
Driver - Helper		14
Emergency Medical Technicians		14
Heavy Machinery Operators		3
Newsmen		2
Sales Rep.		4
Technicians		3
	SUBTOTAL	60

WHOL. TRADE	NUMBER CURRENTLY EMPLOYED
50-51	
Communication Salesperson	1
Elec. Engineer	0
Electronic Service Tech	1
Experienced Salesman	51
Licensed Radio Tech.	8
Maintenance Mechanics	2
Outside-Inside Salesmen	7
Programmers	0
Sales	8
Salesmen	2
Shop (Mech.)	9
Technicians	0
SUBTOTAL	89
RETAIL TRADE	
52-59	
Auto Mechanic	5
Automotive Bookkeeper	10
Auto Technicians	4
Body Shop Technicians	3
Bookkeepers	5
COBOL Programmers	3
Cable Technician	1
Cashiers	30
Clerical	7
Clerks	0
Cooks	8
Dispatchers	2
Drivers	35
Electronic Technicians	0
Excellent Typist-Secretary-Bookkeeper	3
Floor Covering Mechanics	2
Food Prep. Personnel	30
Full-time Sales	5
Gen. Appliance Service Tech.	2
Gift Manager	0
Greenhouse Worker	3
Inside Sales	12
Keypunch Operator	15
Kitchen Help	10
Landscape Foreman	3
Machine Operators	4
Managerial Help	5
Managers	6
Manager & Assts. for Departments	9

(cont'd)

RETAIL TRADE (cont'd) 52-59		NUMBER CURRENTLY EMPLOYED
Meat Cutters		10
Mechanic		26
Mechanics-Body Shop Personnel		21
Music Teachers		12
Nursery Manager-Salesperson		5
Office Machine Repairman		0
Product Support Engineer		4
Refrigeration Serviceman		2
Retail Sales People		2
Route Personnel		14
Saleshelp		2
Saleslady		9
Skilled Kitchen Help		6
Stock Personnel		1
Tailoring		2
Tally Men		10
Waitresses		90
	SUBTOTAL	533

FIN., INS., RE. 60-69		
Accounting/Auditing		3
All Purpose Tellers		29
Auto-H/O-Policy Rater Typist		4
Computer Operator		5
Computer Programmer		4
Custodians		6
Fire Protection Eng.		3
General Ins. Underwriter		5
Key Punch		8
Keypunch Operator		7
Market Analyst		1
Part-time Workers		2
Paster/Clipper		2
Programmers		25
Rating Technician		19
Real Estate Management		3
Sales		6
Sales Agents		8
Tellers		19
Typists		50
Underwriter		30
	SUBTOTAL	252

SERVICES 70-89	NUMBER CURRENTLY EMPLOYED
Accountants	4
Administrators	21
Architect	0
Automotive-Diesel Tech. Teachers	3
Bench Repairman	1
Burner Tech.	6
Bus Drivers	15
Bus. & Economics Instructor	8
Bus. Office Managers	2
Camera Repair	2
Cert. RN Anesthetist	1
Certified Ski Instructors	10
Children's Coordinator	2
Clerical	14
Comm. Lending Officer	2
Computer Personnel	0
Cooks	7
Craft Instructors	4
Custodian	73
Dental Assistant	3
Dental Hygienist	2
Electronics-Engineers-Technicians	4
Embalmer	2
English Jr. & Sr. High	10
Exec. Secretaries	10
Food Service Mgr.	1
Forest Fire Suppressors	20
Geriatric Aid	75
Guidance	12
Health Ed.	1
Housekeeping/Custodian	16
Industrial Arts	10
Intensive Care Nurses	15
Interior Design	1
Janitor	15
Legal Secretary	11
Managerial	10
Manufacturing Engineer	2
Marketing Rep.	1
Math Teachers	45
Math - Trig	17
Mechanic	1
Mechanics-Diesel & Gasoline	3
Mechanical Engineer	1
Medical Technologists	60
Nurses - RN - LPN	437

(cont'd)

SERVICES (cont'd)	NUMBER CURRENTLY EMPLOYED
70-89	
Nurses Aides	197
Nursing	237
Occupational Therapist	0
Ocean Engineer	0
Operating Room Nurses	15
Operators	5
Part-time Design Ass't.	0
Payroll Clerks	2
Physical Therapist	0
Programmers	20
Psych. Counselors	20
Psych. LPN	5
Receptionist-Bookkeeper	2
Rehab. Counselors	2
Religion Teachers	1
Repair Refinish Furniture	1
Reupholstery	6
Sales Counter Person	2
School Psychologists	1
Science Teachers	18
Secretaries	40
Skilled Craftspeople	20
Sociology Instructor	7
Software Engineer	6
Speech Therapist	2
Submarine Piping Designers	6
Systems Analyst/Programmer	7
Teachers of Hearing Impaired	1
Teachers of Voc. Subjects	6
Trained Psych. RN's	35
Vocational Evaluators	2
Vocational Teachers	30
Yardman	1
SUBTOTAL	1648
GOVERNMENT	
90 -	
Clerical	14
Clerical & Secretarial	8
Highway Dept. Laborers	15
LPN	18
Maintenance	55
	110
Grand Total	4,693

APPENDIX C

PRIMARY SURVEY INSTRUMENT

STATE OF NEW HAMPSHIRE
CONCORD 03301

HUGH J. GALLEN
GOVERNOR

Dear Friend:

I think we would all agree that a strong state economy, a continuing high rate of employment, and a reduction in the rate of inflation are goals that must be given the highest priority over the next several years. The accomplishment of these goals will benefit both the citizens and the industries of the Granite State.

It is the firm belief of this administration that a well educated, highly trained labor force is essential if these goals are to be achieved. We must improve our ability to produce the qualified manpower necessary to accommodate healthy growth and labor turnover in both the profit and nonprofit sectors. Furthermore, we must assign the continuing education of ourselves and our employees a high priority if we are to cope with the constant changes in knowledge and skills required to give New Hampshire organizations a competitive edge in improved services, new product development, and technological advancement.

It is for these reasons that I am pleased to lend my support to a cooperative effort on the part of state government and New Hampshire's postsecondary education institutions to assemble and coordinate the educational resources to meet the present and future needs of citizens and organizations throughout the state.

In order to best match our educational resources with the specific needs of the many diversified components of our state's economy, the Postsecondary Education Commission has asked the New Hampshire College and University Council (a group of 12 public and private institutions spanning the entire state) to conduct a statewide continuing education needs assessment.

This assessment will involve mail surveys and follow-up interviews for a selected sample of organizations. It is designed to give you an opportunity to define these areas where you have specific training or educational needs. The results of this assessment will form the basis for a joint effort on the part of New Hampshire educational institutions to assemble the programs which will be of greatest assistance to you and your employees.

For this reason, I hope you will take the time to complete and return the brief questionnaire on the inside portion of this mailing.

I am pleased to see this important example of cooperation between education, business, and human services. I am confident that this partnership will be a fruitful one for all of the organizations and citizens of New Hampshire.

Sincerely,

Hugh J. Gallen

Hugh J. Gallen

HJG:jf

NEW HAMPSHIRE COLLEGE and UNIVERSITY COUNCIL
2321 Elm St., Manchester, N.H. 03104
Tel. 603/669-3432

Address Correction Requested

STATEWIDE CONTINUING EDUCATION ORGANIZATION SURVEY

Please read the instructions and definitions on the reverse side before completing the survey below.

A) ORGANIZATION: _____

B) ADDRESS: _____

C) ZIP: _____

D) COUNTY: _____ E) PHONE: _____

F) RESPONDENT NAME & TITLE: _____

G) NUMBER OF EMPLOYEES: (INCLUDE YOURSELF)
PROFESSIONAL AND TECHNICAL MANAGEMENT: 1. _____
CLERICAL, SECRETARIAL, OFFICE SUPPORT: 2. _____
CRAFT, OPERATIVES, AND ALL OTHER WORKERS: 3. _____
TOTAL : _____

H) OWNERSHIP: (CHECK ONE)
1.( ) PRIVATE PROFIT MAKING
2.( ) PRIVATE NONPROFIT
3.( ) PUBLIC FEDERAL
4.( ) PUBLIC STATE
5.( ) PUBLIC LOCAL
6.( ) OTHER: _____

I) DO YOU HAVE DIFFICULTY FINDING QUALIFIED EMPLOYEES? (CHECK ONE)
1.( ) YES 2.( ) SOMEWHAT 3.( ) NO

J) WOULD YOU LIKE PRESENT EMPLOYEES (OR YOURSELF) BETTER TRAINED? (CHECK ONE)
1.( ) YES 2.( ) SOMEWHAT 3.( ) NO

K) HOW WELL INFORMED DO YOU FEEL ABOUT THE EDUCATIONAL TRAINING AND SKILL DEVELOPMENT SERVICES CURRENTLY OFFERED IN N.H.?
1.( ) VERY WELL INFORMED 3.( ) POORLY INFORMED
2.( ) ADEQUATELY INFORMED 4.( ) NOT INFORMED AT ALL

L) SUPPOSE WE COULD ARRANGE A COMPLETELY INDEPENDENT CUSTOM-MADE COURSE FOR YOU AND/OR YOUR EMPLOYEES. COURSE CONTENT, TIME, REQUIREMENTS, AND LOCATION WOULD BE DESIGNED BY YOU AND A TEAM OF PROFESSIONALS WHO WORK IN YOUR FIELD OF STUDY.

HOW INTERESTED WOULD YOU BE IN SUCH A COURSE?

1.( ) VERY INTERESTED 2.( ) SOMEWHAT INTERESTED 3.( ) NOT AT ALL

M) PLEASE CHECK EACH OF THE FOLLOWING INCENTIVES WHICH YOUR ORGANIZATION HAS OR WOULD MAKE AVAILABLE TO EMPLOYEES IN ORDER TO PROMOTE CONTINUED TRAINING OR EDUCATIONAL DEVELOPMENT. (CHECK ALL THAT APPLY.)

1.( ) ON-THE-JOB TRAINING.
2.( ) ORGANIZED IN SERVICE TRAINING PROGRAMS FOR SPECIFIC AREAS OF EMPLOYEE DEVELOPMENT.
3.( ) PAYMENT FOR SOME OR ALL TUITION AND OTHER EXPENCES AT AREA EDUCATIONAL INSTITUTIONS.
4.( ) RELEASE TIME TO ATTEND EDUCATIONAL INSTITUTIONS.
5.( ) RELEASE TIME TO TRAIN ON THE JOB.
6.( ) ADDITIONAL PAY AND/OR PROMOTION BASED ON EDUCATIONAL ACHIEVEMENTS.
7.( ) NONE
8.( ) OTHER (PLEASE EXPLAIN) _____

N) PLEASE RANK YOUR ORGANIZATION'S NEED FOR THE FOLLOWING TRAINING OPTIONS.

USE 1 = HIGH NEED 2 = MODERATE NEED
3 = LOW NEED 4 = NO NEED
MAKE ONE ENTRY IN EACH BOX.

	PROFESS'NL TECHNICAL MANAGEMENT	CLERICAL	CRAFT, OPERATIVES ALL OTHERS
SHORT TERM TRAINING SESSIONS ON SPECIFIC NEEDS.	1.	2.	3.
SPECIAL COURSES FOR UPGRADING AND DEVELOPING NEW SKILLS.	4.	5.	6.
COURSES LEADING TO A COLLEGE DEGREE.	7.	8.	9.

INSTRUCTIONS FOR COMPLETING QUESTIONNAIRE

WHAT KINDS OF BUSINESSES ARE BEING SURVEYED?

This survey is going to over 18,000 public and private business organizations and agencies in New Hampshire. Organizations with over 100 employees are receiving this questionnaire, as well as "one person operations" and "family" businesses. No organization is too small to be covered by this survey. Even if you have no employees and run the operation by yourself, you may be interested in upgrading and developing your own professional skills.

WHO SHOULD FILL IT OUT?

The owner, chief executive officer, or personnel director at the location receiving the survey should fill out and return the questionnaire. Managers of branch locations should fill it out for their operation. Please do not forward it to a head office at another location.

WHAT IF MY ORGANIZATION HAS NO INTEREST IN, OR NEED FOR, CONTINUING EDUCATION OR FURTHER TRAINING?

The State of New Hampshire is interested in hearing from you. Negative as well as positive responses are useful in order to give us a true picture of the need for continuing education and training in the state.

DEFINITIONS (FOR QUESTIONS G AND N):

1. Professional and Technical Management: this includes management, owner-operators, professionals, sales staff, etc.

2. Clerical: includes secretaries, clerks, typists, receptionists, etc.

3. Craft, Operatives, and Other Workers: includes machine operators, production personnel, laborers, craftpersons, and all others who do not fit in 1 or 2 of the above.

* * * * * * *

MAILING INSTRUCTIONS

1. This is a postage free survey and does not require a stamp if the enclosed business reply envelope is used.

2. Please check to make sure that you have completed all of the survey questions and have corrected any errors on the mailing label that appears at the top of your survey form.

PLEASE RETURN WITHIN ONE WEEK

APPENDIX C

PRIMARY SURVEY INSTRUMENT

THE STATE OF NEW HAMPSHIRE

POSTSECONDARY EDUCATION COMMISSION
61 SOUTH SPRING STREET — CONCORD, NH 03301
603-271-2555

"Live Free or Die"

NEW STUDY REVEALS MAJORITY OF NEW HAMPSHIRE EMPLOYERS HAVE CRITICAL TRAINING NEEDS

ear Friend:

ast May approximately 17,500 New Hampshire businesses, industries, and service rganizations received a letter from Governor Hugh Gallen and a survey form requesting nformation regarding the needs of New Hampshire for educational/training services. Of ne organizations that responded to this statewide survey:

73% indicated that they have difficulty finding qualified employees
84% indicated that they would like their present employees better trained
77% indicated that they would be interested in specially designed custom-made educational/training programs for their employees
the majority of those responding indicated a need for either short-term training sessions on specific needs, or special courses for upgrading and developing new skills

nese results indicate quite clearly that New Hampshire's colleges and universities need o forge cooperative linkages between education, industry, and government. We must find ew ways to provide New Hampshire employers with the qualified, highly-trained labor orce needed to meet the challenges of the 1980's.

s you can guess from the enclosed form, you are being badgered with yet another uestionnaire. Before you toss it in your "circular file," please give me a chance to nlist your cooperation. This survey is being mailed to selected organizations only. The esults of the preliminary survey have allowed us to select those organizations in the tate, grouped by organizational type, that have indicated a common need for further raining for their employees. Your response to this survey will have a direct impact on ne kinds of educational resources that will be available to meet your needs in the future.

nding for this project is provided through a grant from the State of New Hampshire of ederal Revenue Sharing Funds. Additional support has come from private foundations and ne contributed services of persons interested in the successful development of our State's conomy.

lping us plan now to meet your needs will result in an efficient, effective, and tually beneficial educational system in our State. It will insure that the Federal, ate, and private dollars that support the postsecondary educational system in New mpshire are utilized in a responsive and coordinated manner.

Sincerely,

Kasper C. Marking, Chairman
New Hampshire Postsecondary Education Commission

S. Your effort in completing the enclosed questionnaire within two weeks would be greatly appreciated.

CONTINUING EDUCATION NEEDS ASSESSMENT
EMPLOYER SURVEY

NEW HAMPSHIRE COLLEGE AND UNIVERSITY COUNCIL
2321 ELM STREET
MANCHESTER, NEW HAMPSHIRE 03104

L

Please correct label

PLEASE ANSWER THIS QUESTIONNAIRE FOR THIS LOCATION. DO NOT FORWARD TO A MAIN OFFICE AT ANOTHER LOCATION.

mit if bove abel s orrect

1) Organization: _____

2) Address: _____

_____ Zip: _____

3) County: _____

4) Name and Title of Respondent: _____

5) Telephone: _____

6) What is your organization's primary product or service: _____

_____

_____

_____

7) Please divide the employees at this location into four occupational groups and indicate the number or percentage in each.

	Number	or	%
A. Administrators, proprietors, managers and supervisors	____		____
B. Professionals and technical specialists (i.e., engineers, scientists, technicians, accountants, sales staff, agents, social workers, etc.)	____		____
C. Clerical (i.e., typists, stenographers, secretaries)	____		____
D. Craft, operatives, all others (include machine operators, production personnel, mechanics, skilled and unskilled labor)	____		____
E. TOTAL NUMBER (Always enter total regardless of use of numbers or percents in A-D)	☐		

8. Are there specific occupational categories where you are having difficulty finding employees?

Yes No

If yes, please specify in order of difficulty (most difficult first).

	Job Title	Number Currently Employed
A.	_____	_____
B.	_____	_____
C.	_____	_____
D.	_____	_____
E.	_____	_____
F.	_____	_____
G.	_____	_____

9. Is the responsibility for employee training assigned to:

(Check all that apply)

A. An officer at this location responsible for training employees <u>at this location only</u> ( )

B. An officer at this location responsible for training employees <u>at this and other branch locations</u> ( )

C. An officer at <u>another location</u> responsible for training employees at this location ( )

D. <u>No specific person</u> assigned ( )

E. Other (specify) _____

_____ ( )

10. If this is a branch location and the responsibility for training at your location resides with a designated training officer at another location, please enter his/her name (or title) and address below.

Name _____

Address _____

_____ Zip _____

11. In some cases, the number of employees needing training in specific subject areas are too few to warrant an educational effort for those employees alone. Would you participate in a cooperative regional training/educational program combining employees from several area organizations with similar educational needs? (Circle one)

Yes Maybe No

12. Please indicate the minimum educational requirement for an entry level position in each of the four occupational groups:

		Administrators (check below)	Professional Technical (check below)	Clerical (check below)	Craft Operatives (check below)
A.	None	( )	( )	( )	( )
B.	Less than a high school education	( )	( )	( )	( )
C.	A high school education	( )	( )	( )	( )
D.	Some college	( )	( )	( )	( )
E.	A college graduate	( )	( )	( )	( )
F.	Vocational education training (postsecondary)	( )	( )	( )	( )
G.	Other requirements (specify)	( )	( )	( )	( )

_____

_____

_____

13. Please indicate those areas where you are now running or supporting training programs for your employees by entering in the boxes below, the number of employees who have participated (within the last twelve months).

(See question 7 for definition of categories)

		Administrators	Professional Technical	Clerical	Craft Operatives
A.	Pre-employment training	☐	☐	☐	☐
B.	On-the-job training	☐	☐	☐	☐
C.	Apprenticeship	☐	☐	☐	☐
D.	Special courses run on-site by an outside educational organization	☐	☐	☐	☐
E.	Courses and programs at area vocational technical schools	☐	☐	☐	☐
F.	Courses and programs at area colleges or universities	☐	☐	☐	☐

14. Please circle any box in question 13 to indicate any area where you are now running training programs and would like additional assistance in the future. Outline briefly the kinds of assistance you would like.

_____

_____

_____

_____

We need your help in order to determine the continuing education/skill areas that would be of greatest benefit to the maximum number of organizations in New Hampshire.

The skill areas listed in question 15 and the subject areas listed in question 16 may overlap and do not include all possibilities. In many cases, the subject areas listed may be too broad to adequately describe the special educational needs of your organization. For this reason, it is extremely important that you ADD ANY ADDITIONAL SKILLS OR ACADEMIC PROGRAMS for which your organization may have a special need and that do not now appear on either list.

Please note that this data is being gathered for planning purposes only. Your response to this questionnaire does NOT IN ANY WAY OBLIGATE YOU or your organization to participate in any form of continuing education.

15. In terms of specific skill training, please circle the letter to the left of those areas where a skill development program might be particularly beneficial to your employees. If possible, enter the approximate number of employees you might encourage to enroll in such a program in the space to the right.

Possible Development Areas (Circle letter)		Number Encouraged to Enroll (Approximate if possible)
A.	Machine or manual skills	_____
B.	Athletic physical coordination skills	_____
C.	Detail/follow-through skills	_____
D.	Numerical/financial/accounting skills	_____
E.	Influencing/persuading skills	_____
F.	Performing/demonstrating skills	_____
G.	Leadership skills	_____
H.	Developing/planning/organizing/supervising skills	_____
I.	Language/reading/writing/speaking/communication skills	_____
J.	Instructing/guiding/educational skills	_____
K.	Serving/helping/cooperating/human relations skills	_____
L.	Imaginative/innovating skills	_____
M.	Artistic skills	_____
N.	Observational/learning skills	_____
O.	Research/analyzing/evaluating skills	_____
P.	Other(s) (Specify)	

_____

_____

16. Please select from the following list of academic programs, those subject areas that you would support for the continuing education of your employees. Please assume that any area chosen would be "fine tuned" to relate specifically to the level of advancement and special needs of the individual and your organization. (Choose programs by circling the number opposite your selection.) Note: Add any additional programs you want but which do not appear on the following list by writing them in on question 17.

Circle the number opposite your selection

AGRICULTURE AND NATURAL RESOURCES
01 Agriculture (specify)
_____
_____

ARCHITECTURE AND ENVIRONMENTAL DESIGN
02 Architecture (specify)
_____
_____

BUSINESS AND MANAGEMENT
03 Accounting
04 Business statistics
05 Banking and finance
06 Investments and securities
07 Business management and admin.
08 Operations research
09 Hotel and restaurant management
10 Marketing and purchasing
11 Transportation and public utilities
12 Real Estate
13 Insurance
14 International business
15 Personnel management
16 Labor and industrial relations
17 Business economics
18 Secretarial technologies

COMMUNICATIONS
19 Communications (specify)
_____
_____
20 Advertising
21 Printing technologies

COMPUTER AND INFORMATION SCIENCES
22 Computer programming
23 Systems analysis
24 Key punch operator
25 Computer operator
26 Data process. equip. maintenance

ENGINEERING
27 Engineering (specify)
_____
_____

HOME ECONOMICS
28 Home economics (specify)
_____
_____
29 Foods and nutrition
30 Institutional and cafeteria mgmt.
31 Food handling and serving

PSYCHOLOGY
32 Psychology, (specify)
_____
_____

PUBLIC AFFAIRS AND SERVICES
33 Community services, general
34 Public administration
35 Social work and helping services
36 Law enforcement and corrections

SOCIAL SCIENCES
37 Economics
38 Political science and government
39 Sociology

HEALTH SERVICES AND PARAMEDICAL TECHS.
40 Health services, specify
_____
_____
41 Radiologic technologies
42 Nursing
43 Occupational therapy
44 Medical record
45 Psychiatric technologies
46 Institutional management
47 Physical therapy

MECHANICAL AND ENGINEERING TECHNOLOGIES
48 Mechanical Engineering
49 Aeronautical and aviation
50 Engineering graphics
51 Architectural drafting
52 Chemical
53 Automotive
54 Diesel
55 Welding
56 Civil
57 Electronics and machine
58 Electromechanical
59 Industrial
60 Textile
61 Instrumentation
62 Machine
63 Nuclear
64 Construction and building

EDUCATION(for educational organizations)
65 Elementary education, advanced
66 Secondary education, advanced
67 Special education (specify)
_____
68 Ed. statistics,rsch,measure,etc.
69 Student personnel
70 Educational administration
71 Business and commerce education
72 Industrial arts and voc ed.

17. Can you suggest some additional educational programs that would be beneficial to your employees and that do not appear above.

Educational/Program	Number Estimated To Be Trained
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

18. Are there specific occupational categories where you feel postsecondary education has done a poor job in preparation of students entering your industry immediately after graduation from their postsecondary training? Please specify in order of level of preparation (very poor to poor).

_____

_____

_____

_____

19. Can you provide us with information on educational programs or specific skill training areas in which educational institutions have done a particularly poor job of preparing your employees?

_____

_____

_____

_____

20. Please use the space below to comment on any long-range educational needs which your organization may have based on a need to accommodate for changes in knowledge or skill. (i.e., technical knowledge needed to stay ahead of competition)

_____

_____

_____

21. This space is reserved for any additional comments, requests for information or suggestions you may have concerning continuing education planning for organizational needs in New Hampshire.

_____

_____

_____

APPENDIX E

INTERVIEW SUPPLEMENT

INTERVIEWERS' SUPPLEMENT
SECTION I - EDUCATIONAL FINANCE

1. Does your organization have a policy for helping employees finance their education? (Circle)

   Yes No

   If "no" go to Section II

2. Does your organization offer a tuition refund program? (Circle)

   Yes No

   If "no" go on to question 6

3. If yes, who qualifies for the tuition refund policy? (Circle)

   A. Full time personnel Yes No

   B. Part time personnel Yes No

   C. Specific job categories only Yes No

   List _____

   _____

   D. Other (Specify) Yes No

   _____

4. If the tuition refund policy applies to certain subject areas only, list areas or state policy.

   _____

   _____

   _____

5. What is the policy regarding the grade level required to receive a tuition refund?

Grade	% of Tuition Covered
A	_____
B	_____
C	_____
D	_____
Failed	_____

6. Does your organization offer an educational loan program? (Circle)

   If "no" go to question 10. Yes No

7. If yes, who qualifies for an educational loan? (Circle)

   A. Full time personnel Yes No

   B. Part time personnel Yes No

   C. Specific job categories only Yes No

   Please list _____

   _____

   _____

   D. Other (Specify) _____ Yes No

   _____

   _____

8. If the education loan policy applies to certain subject areas only, list areas or state policy. _____

   _____

   _____

   _____

9. What is the policy regarding the grade level required to receive forgiveness for repayment of an educational loan?

Grade	% of Tuition Covered
A	_____
B	_____
C	_____
D	_____
Failed	_____

10. What other policy(s) does your organization have for helping employees finance their education? Describe - include who is qualified, what subjects are covered and what grades are required.

_____

_____

_____

11. What is the maximum number of courses an employee may take in a twelve month period?(enter number)

_____

12. What is your policy on academic credit vs. non credit courses?

_____

_____

_____

13. What is your policy regarding enrolling in degree programs versus taking individual courses with no degree objective in mind?

_____

_____

_____

14. What is your policy regarding educational benefits for the spouse and/or children of employees?

_____

_____

_____

15. What percentage of your total educational budget goes to which employee groups? (Enter 0 if nothing is spent)

		%
A.	Administrators, proprietors, managers, and supervisors	_____
B.	Professionals and technical specialists (i.e., engineers, scientists, technicians, accountants, sales staff, agents, social workers, etc.)	_____
C.	Clerical (i.e., typists, stenographers, secretaries)	_____
D.	Craft, operatives, all others (include machine operators, production personnel mechanics, skilled and unskilled labor)	_____
		100 %

INTERVIEWERS' SUPPLEMENT

SECTION II - EDUCATIONAL COUNSELING

1. Do you provide educational counseling for your employees? (Circle)

Yes No

2. If yes, please complete:

A. Person Responsible _____

B. Job Title _____

C. Number of Staff _____

D. Services Provided: _____

_____

_____

E. Adequacy of Service _____

_____

_____

3. If you do not provide educational counseling, do you see a need for this kind of service? (Circle)

Yes No

4. If yes, please describe what kinds of counseling would be most useful. (i.e., long range career planning)

_____

_____

_____

_____

ORGANIZATION _____

INTERVIEWER'S SUPPLEMENT

SECTION III - CURRENT OR SUGGESTED
TRAINING/EDUCATIONAL PROGRAMS

Please complete one Section III questionnaire for each training/educational program which the organization is currently running or would like to run.

1. The following responses pertain to a training program this organization: (Check one)
   - A. Is currently running ( )
   - B. Would like to run ( )

2. Program Title _____

3. Program objective or goal _____

   _____

   _____

4. Subject areas (to be) covered _____

   _____

   _____

5. Approximate number of employees currently involved or who would be involved.

   _____

6. Occupational classifications of employees involved _____

   _____

   _____

   _____

7. Amount of time involved. A. Hours per week _____

   B. Number of weeks _____

8. Is (would) the program be conducted; (Check one)

   A. On site at your location ( )

   B. At another location ( )

   C. No preference ( )

9. Is (would) the training be conducted: (Check one)

   A. During working hours ( )

   B. After working hours ( )

10. Who runs (would run) the program? (Check all that apply)

   A. Employees of your location ( )

   B. Employees from corporate training division ( )

   C. Outside consultants (specify group if possible) ( )

   _____

   D. No preference, whoever can do the best job ( )

   E. Purchased packaged materials ( )

   F. Other (Specify) _____

   _____ ( )

11. What basic need motivates the initiation of this program? (Check all that apply)

   A. To accommodate for turnover or growth in number of employees ( )

   B. To keep up with changes in technology and knowledge skills ( )

   C. Employee career growth (development) ( )

   D. Improve worker performance ( )

   E. Employee benefit ( )

   F. Other (Please specify)

   _____

   _____ ( )

TO BE FILLED OUT BY INTERVIEWER ONLY

1. Do you think this interview provided a valid indication of the organization's attitude? Elaborate.

   ( ) Very much so
   ( ) Some
   ( ) Not at all

   _____

   _____

   _____

2. Total time spent in actual interview _____

3. Total time spent travelling to interview site _____

4. Round trip mileage to interview _____

5. Please comment on the quality of the interview, i.e., anything you think significant about the respondent, the organization, the product or service, employee characteristics.

   _____

   _____

   _____

6. Date of interview _____

7. Name of person who was interviewed

   _____

8. Name of organization

   _____

9 Location _____

   _____

   _____

10. Interviewer _____